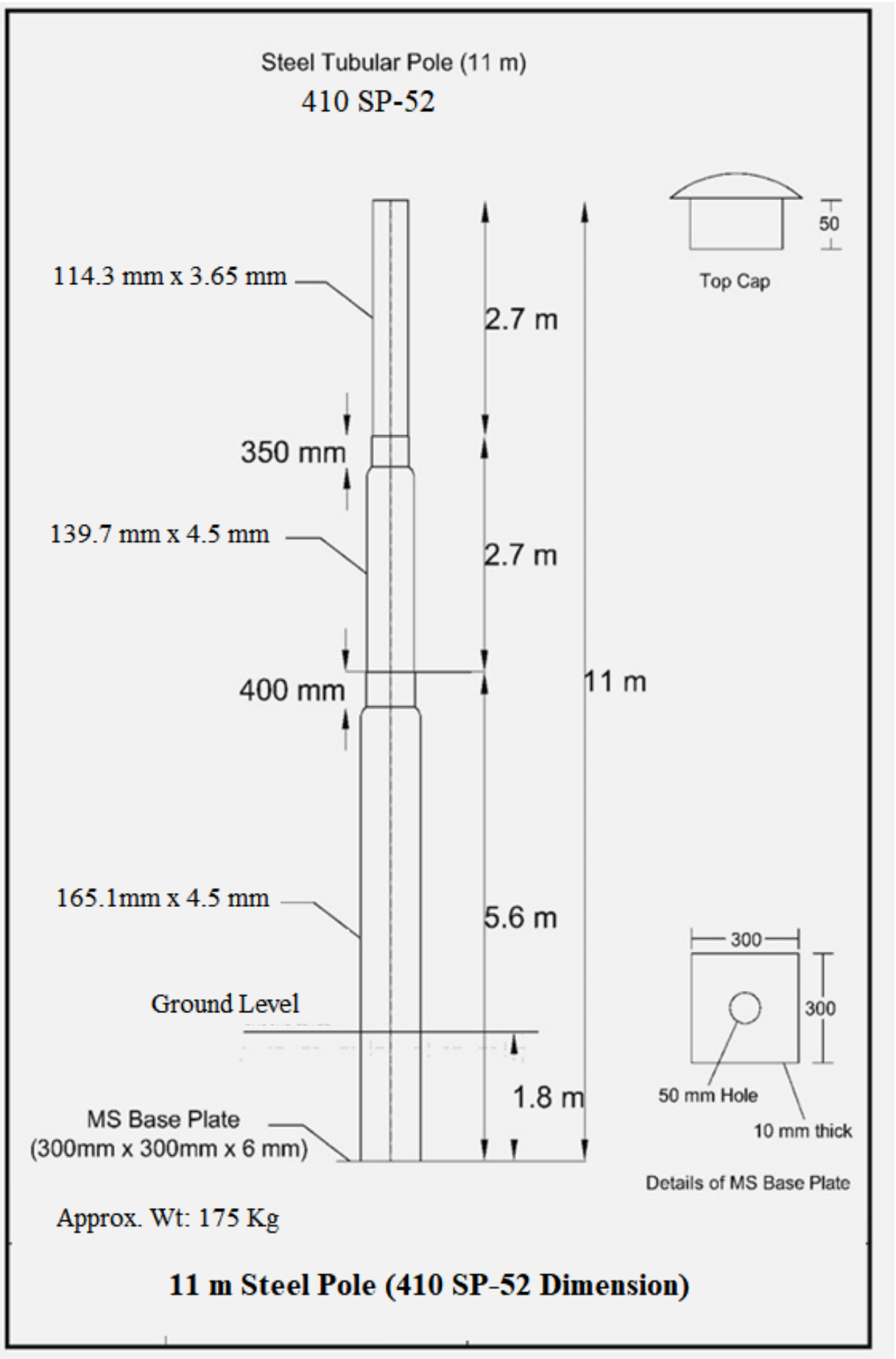
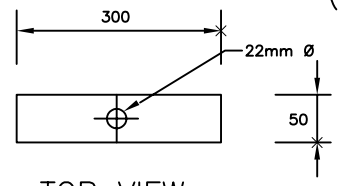
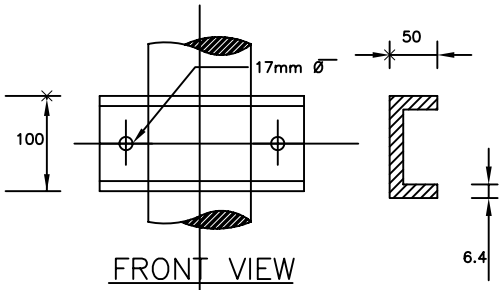


11 m Steel Pole (410 SP-52 Dimension)

A) POLE TOP CROSSARM
(100*50*6.4*300)

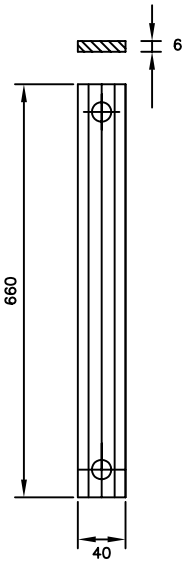


TOP VIEW

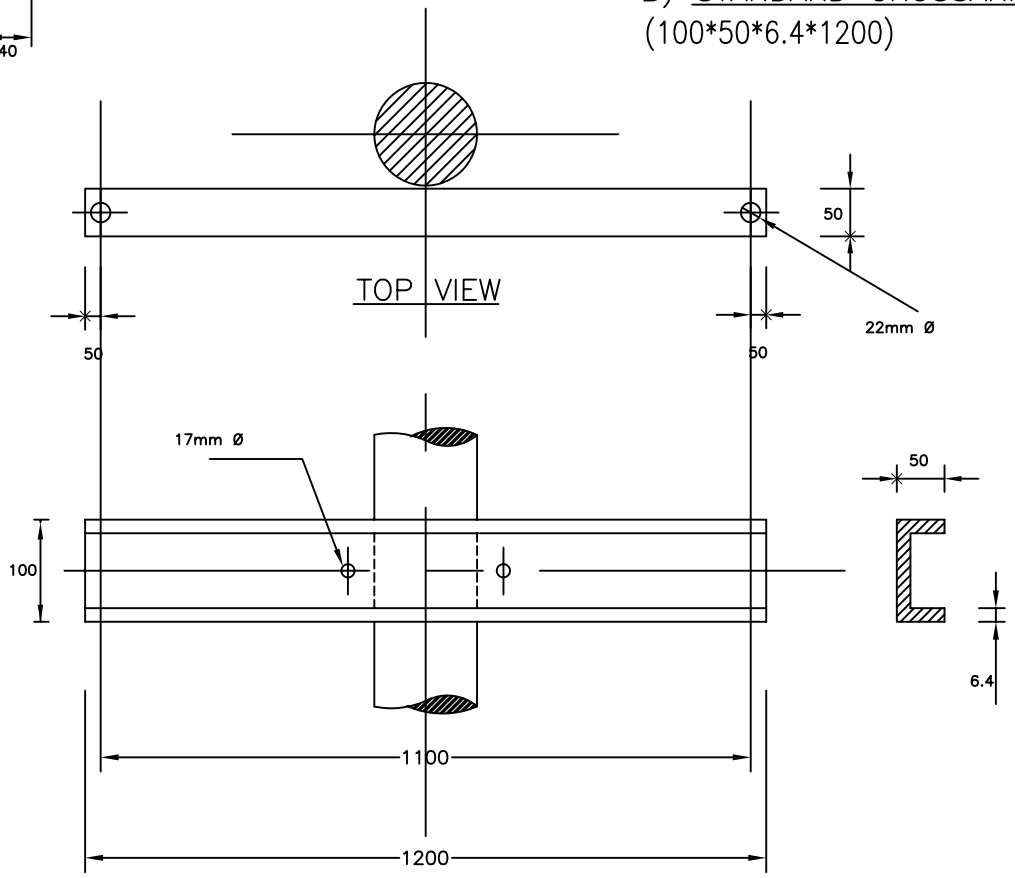


FRONT VIEW

C) FLAT CROSSARM BRACE
(40*6*660)



B) STANDARD CROSSARM
(100*50*6.4*1200)



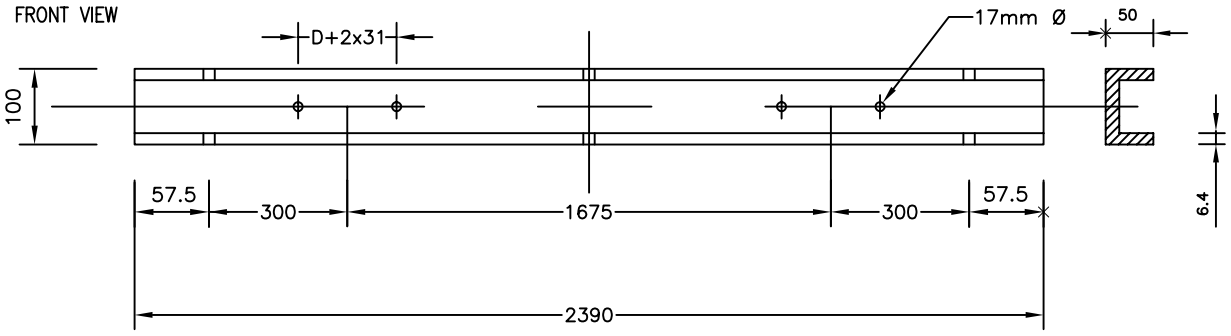
TOP VIEW

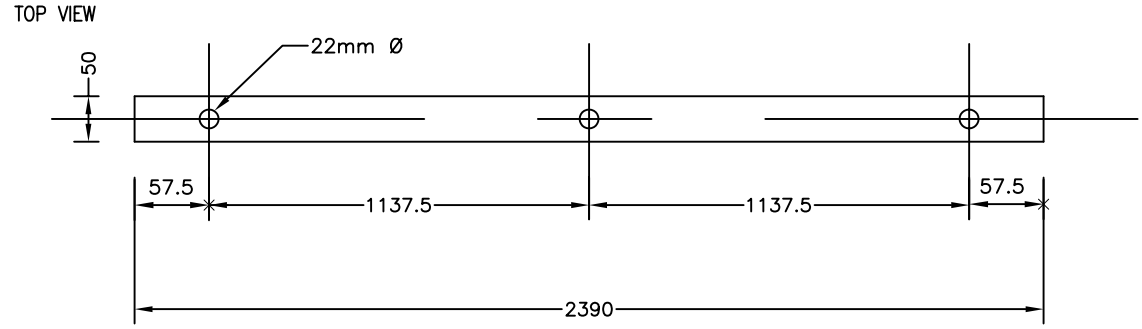
FRONT VIEW

LOCATION OF HOLES TO BE CONFIRMED PRIOR TO MANUFACTURE

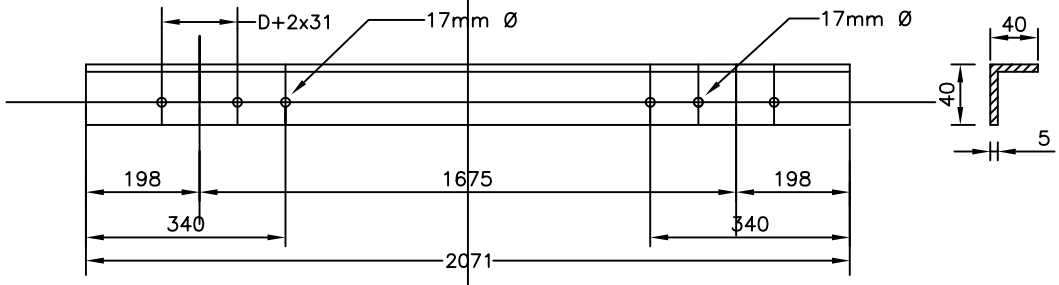
Drawing **CS11-LM-01**	**Standard Crossarm** **11 kV Single Pole Structure**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

CROSSARM CHANNEL (100*50*6.4*2390 MM)

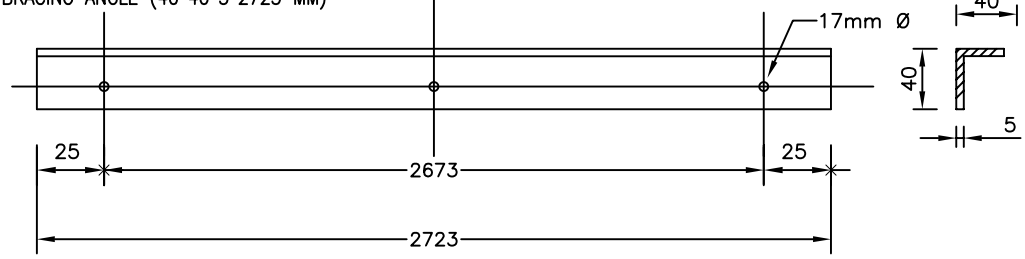




BRACING ANGLE (40*40*5*2071 MM)



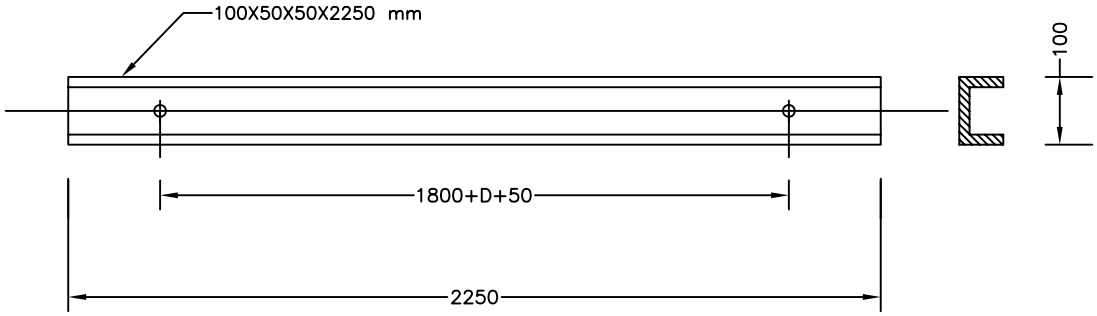
CROSS BRACING ANGLE (40*40*5*2723 MM)

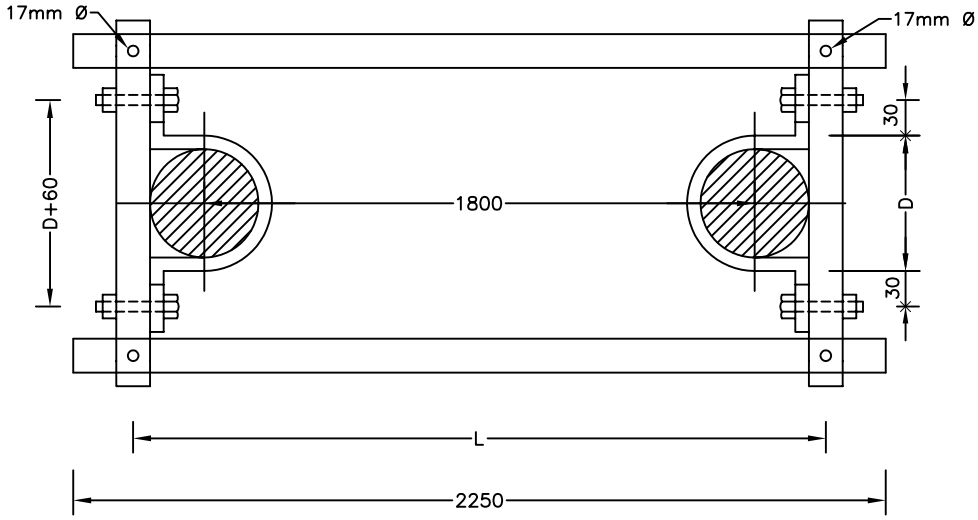


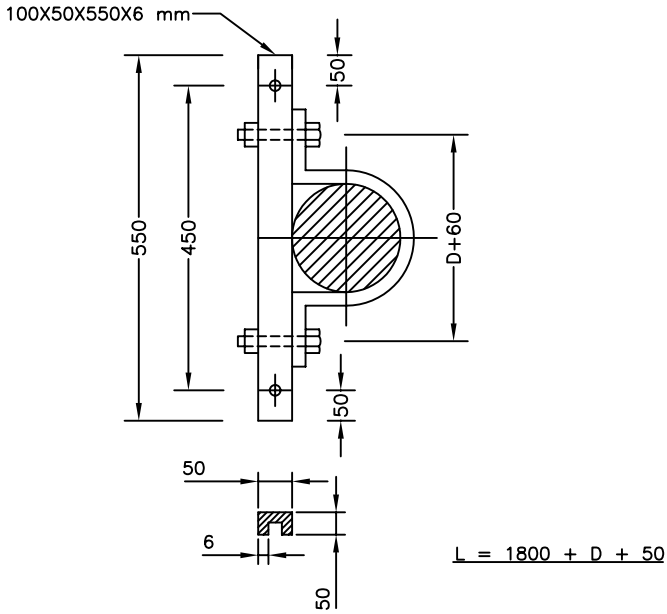
LOCATION OF HOLES TO BE CONFIRMED PRIOR TO MANUFACTURE

D = DIAMETER OF THE POLE

Drawing	Crossarm & Bracing for	NEPAL ELECTRICITY AUTHORITY
CS11-LM-03	**11 kV Double Pole (H-Structure)**	**Technical Services / Commercial Department**
		Distribution and Consumer Services





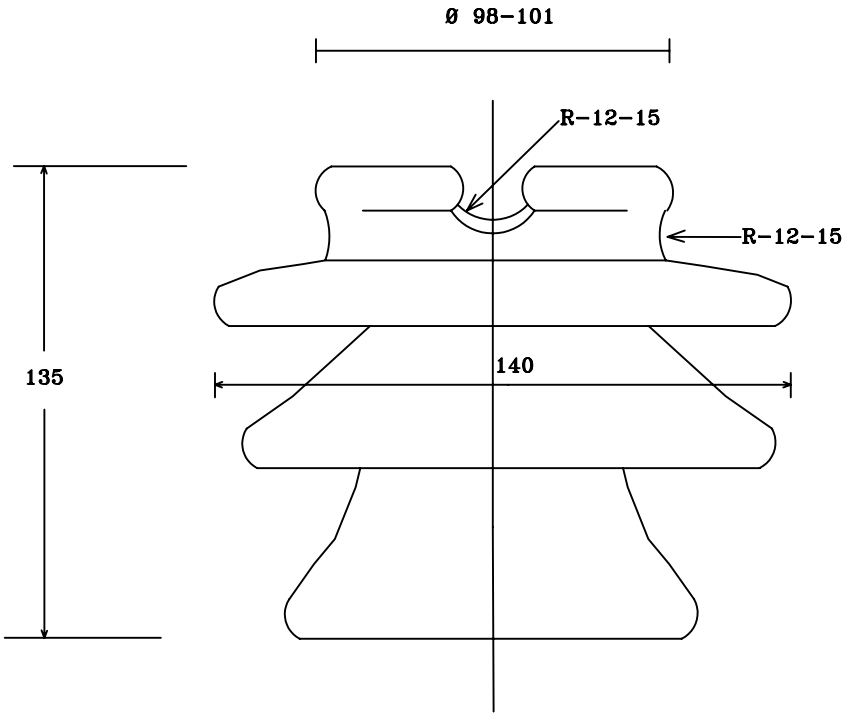


L = 1800 + D + 50

D = DIAMETER OF THE POLE

Drawing **CS11-LM-04**	**Transformer Platform**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

Silicon Polymer Pin Insulator

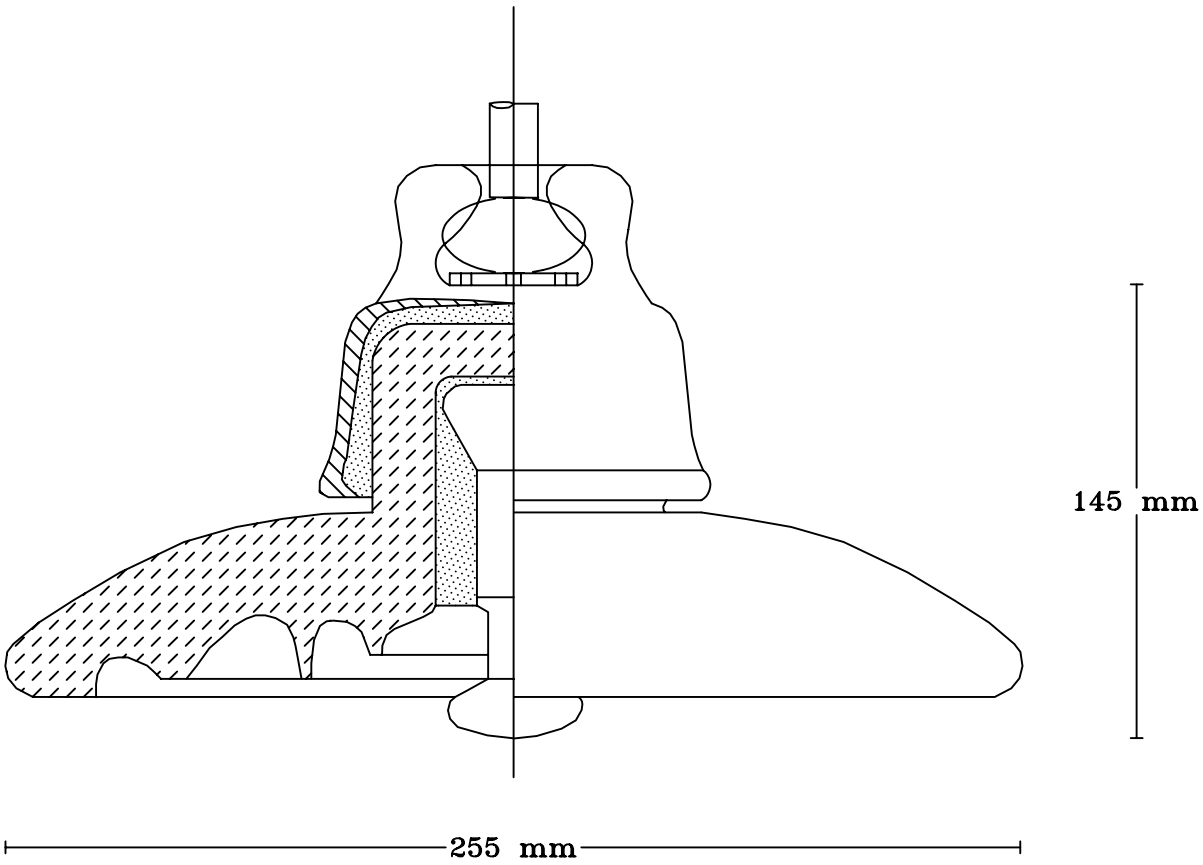


TYPE A

Applicable Standard IS : 731

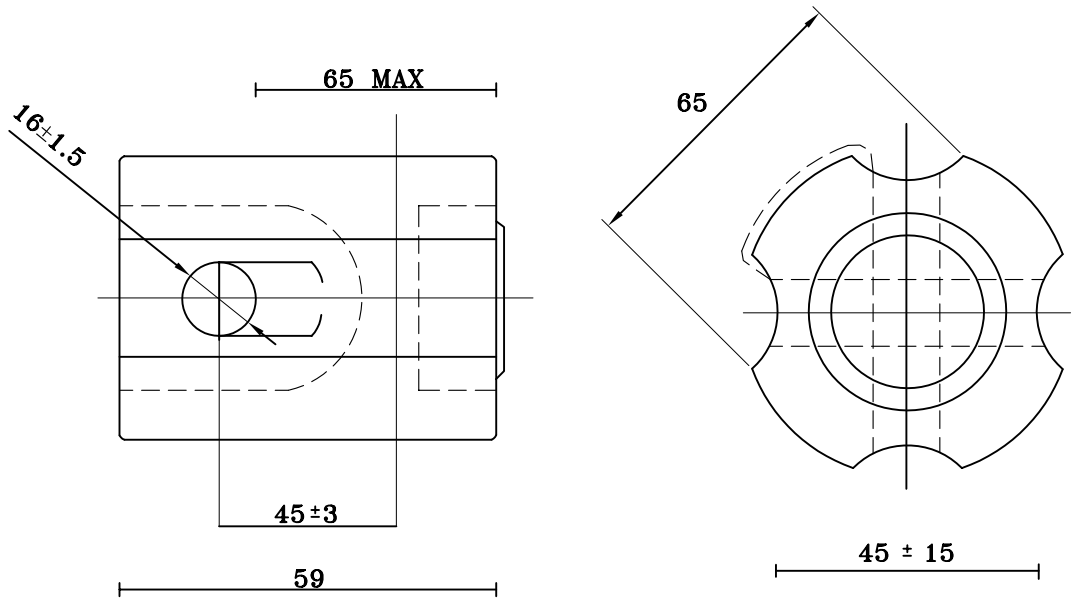
Drawing **CS11-LM-05**	**11 kV Pin Insulator**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

Silicone Polymer Disc Insulator

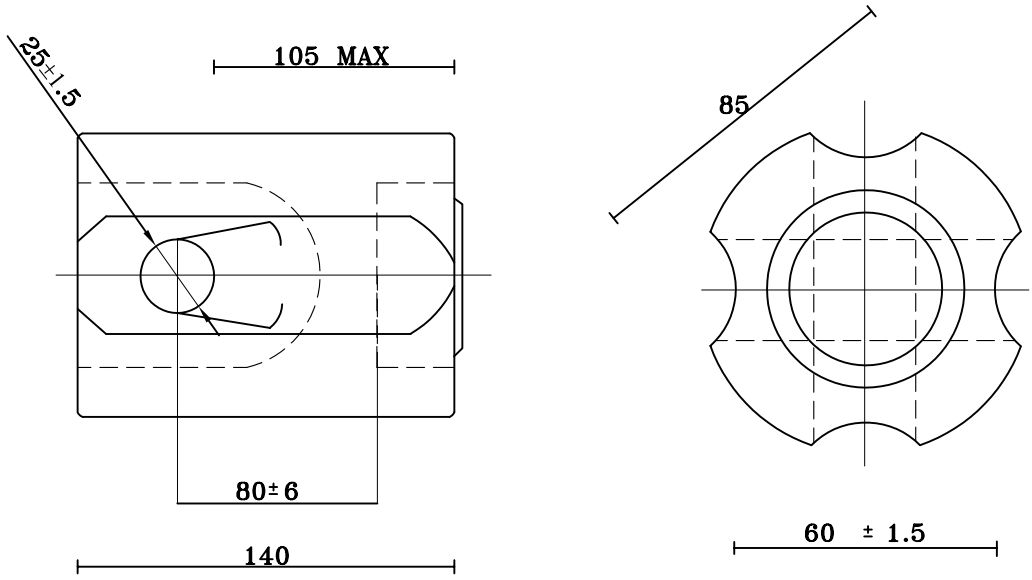


Applicable Standard IS : 731 & IS : 3188

Drawing **CS11-LM-06**	**Disc Insulator**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services



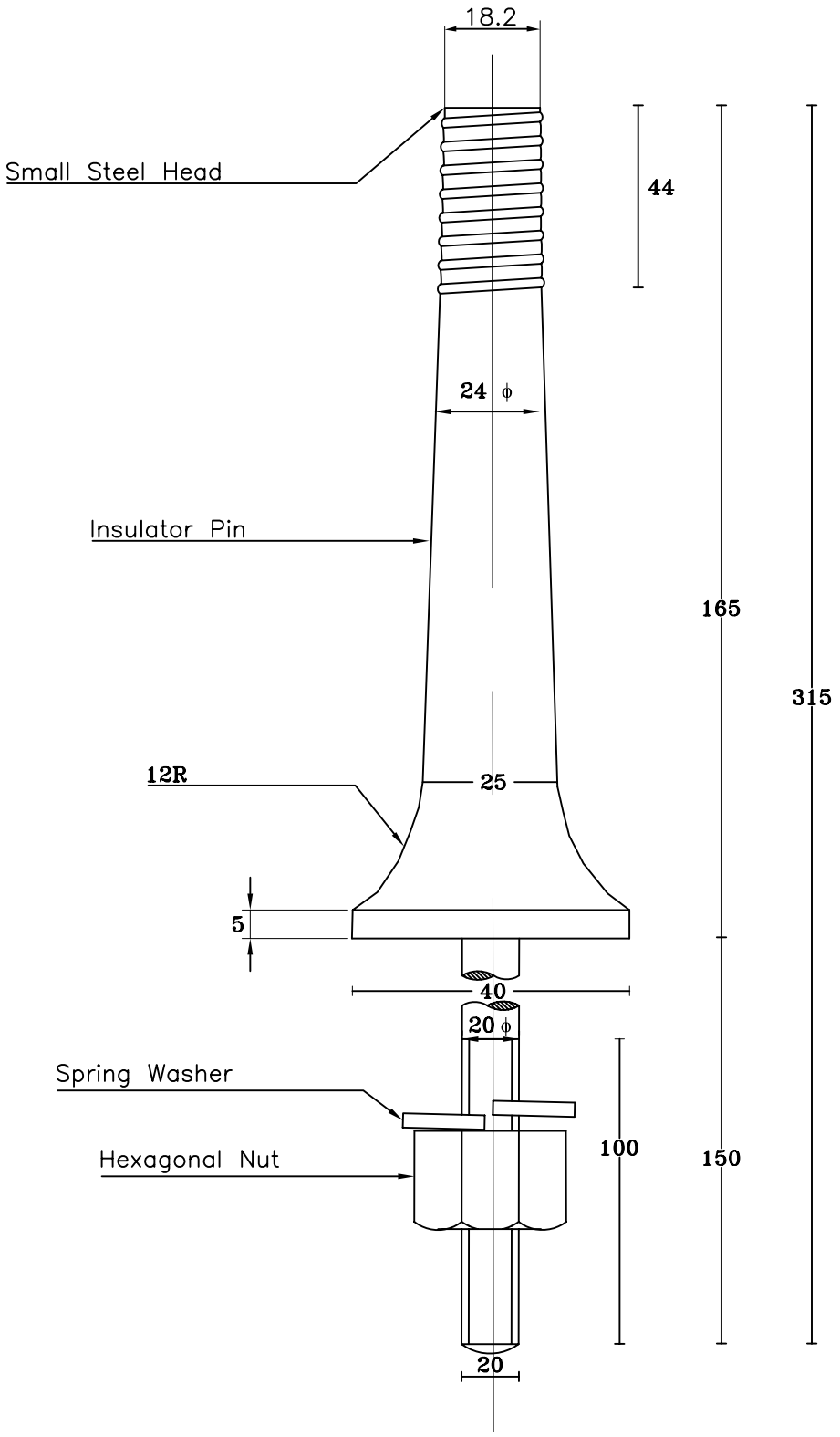
TYPE – 2



TYPE – 1

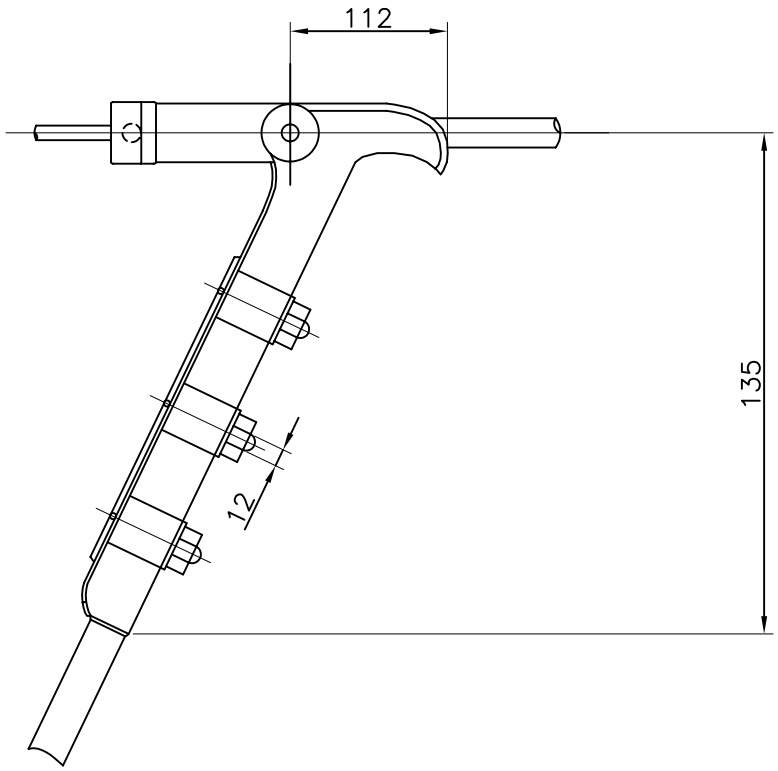
Applicable Standard IS : 5300

Drawing **CS11-LM-08**	**Stay Insulator**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

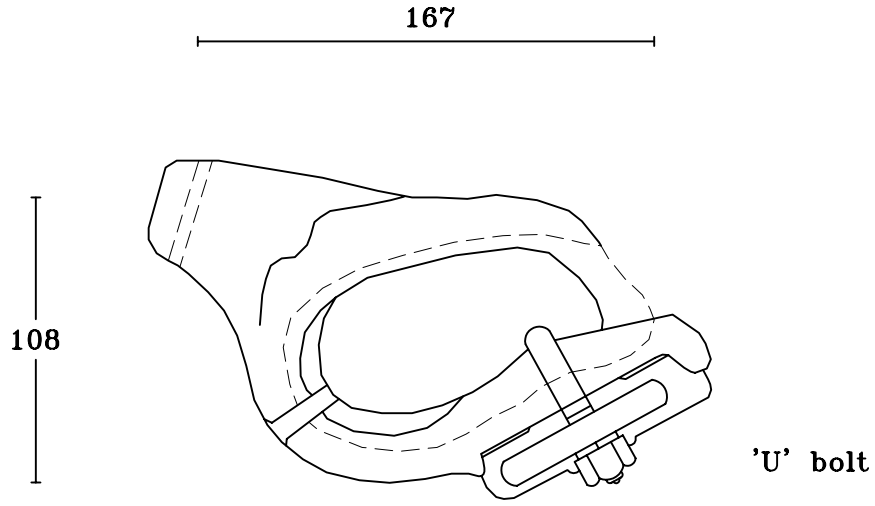


TYPE SI 65 P IS:2486 (PART II)

Drawing **CS11-LM-09**	**Insulator Pin**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

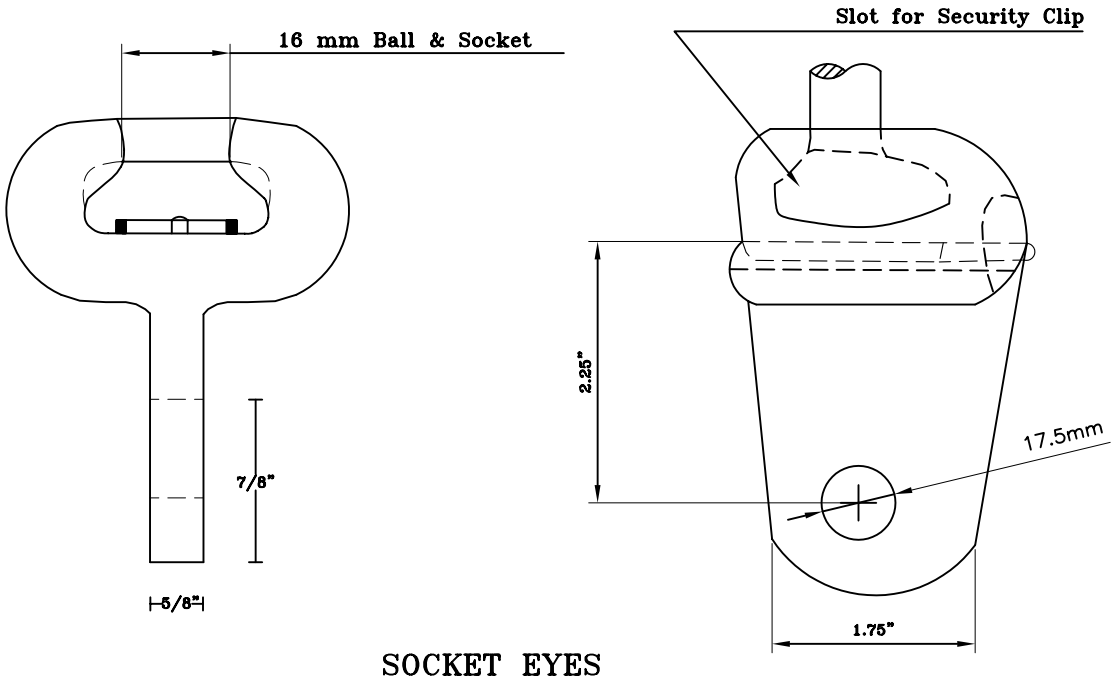


TYPE A (Straight Type)

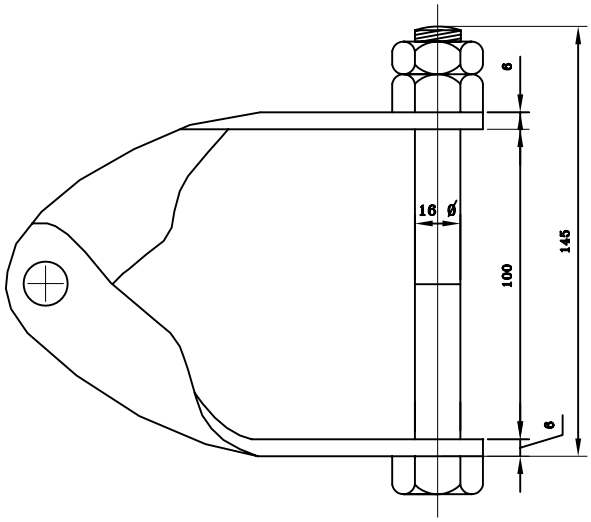


TYPE B (Snail Type)

Drawing **CS11-LM-10**	**Tension Clamp**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services



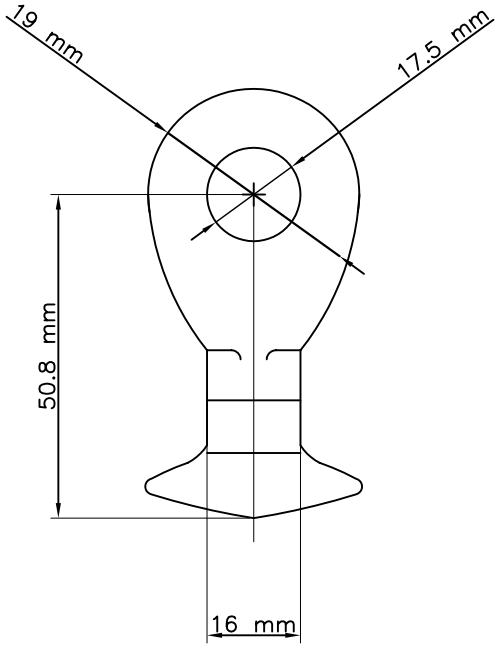
SOCKET EYES

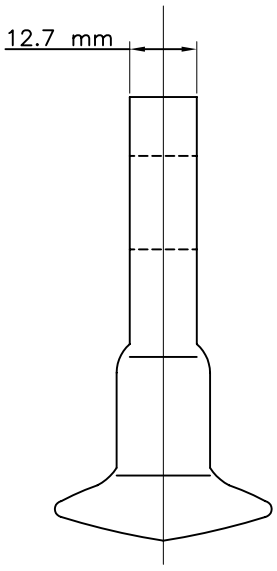


Section: 50 X 6.0 mm

BACK STRAP

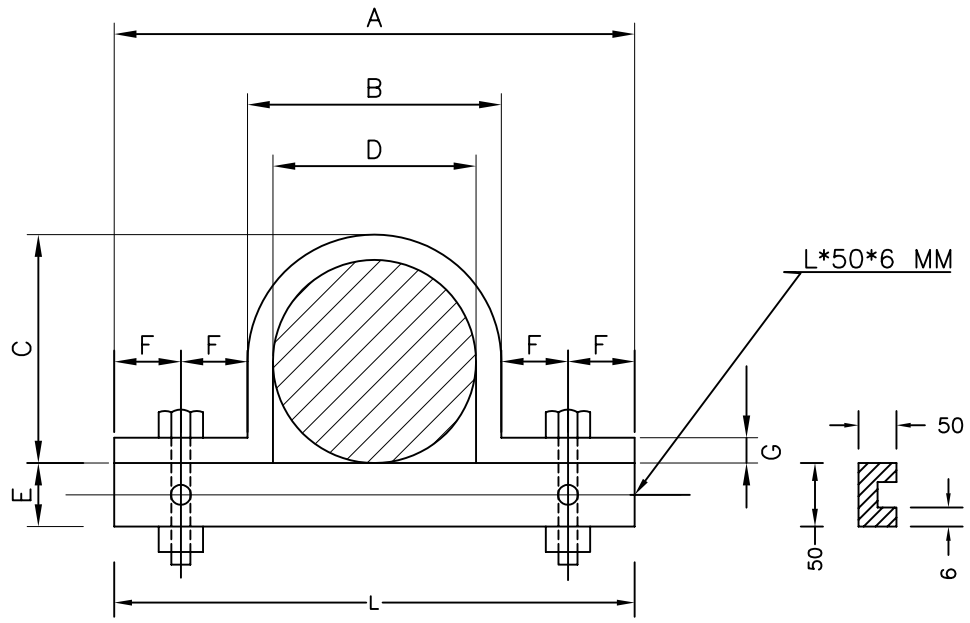
Drawing **CS11-LM-11**	**Hardwares for Tension Set**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services





BALL EYES

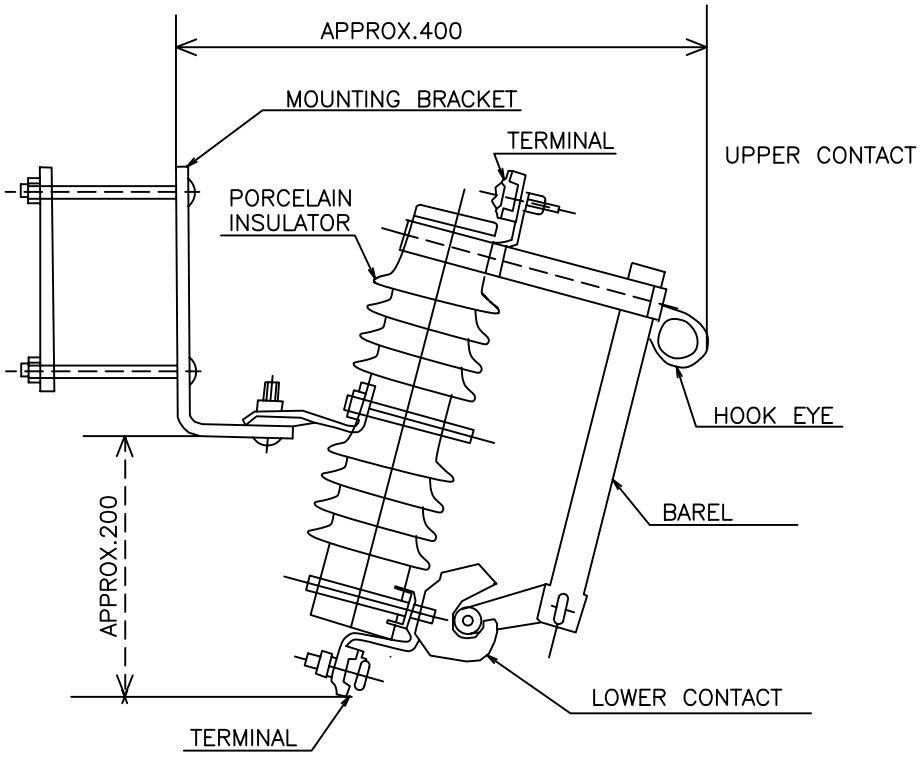
Drawing **CS11-LM-12**	**Hardwares for Tension Set**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

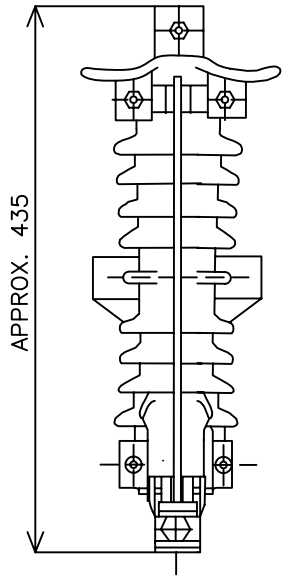


D (Pole Dia.)	A	B	C	E	F	G
88.9	200.9	100.9	94.9	50	25	6
114.3	226.3	126.3	120.3	50	25	6
139.7	251.7	151.7	145.7	50	25	6
165.1	277.1	177.1	171.1	50	25	6

ALL DIMENSIONS ARE IN MM

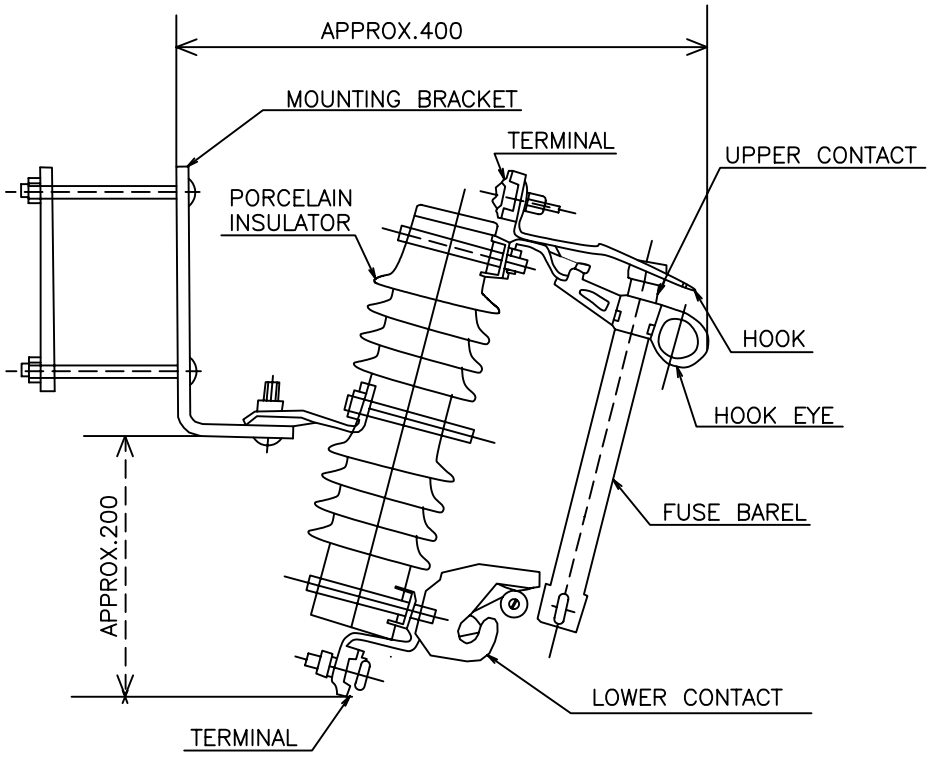
Drawing **CS11-LM-14**	**Pole Clamp** **(Tubular Poles)**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

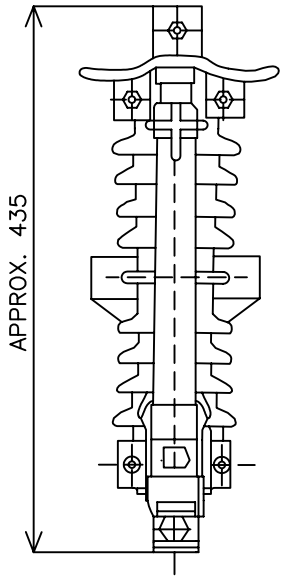




Terminal : Bolted Type Suitable for copper wire 8mm Porcelian color : Brown/white

Drawing **CS11-LM-16**	**Disconnet Switch**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

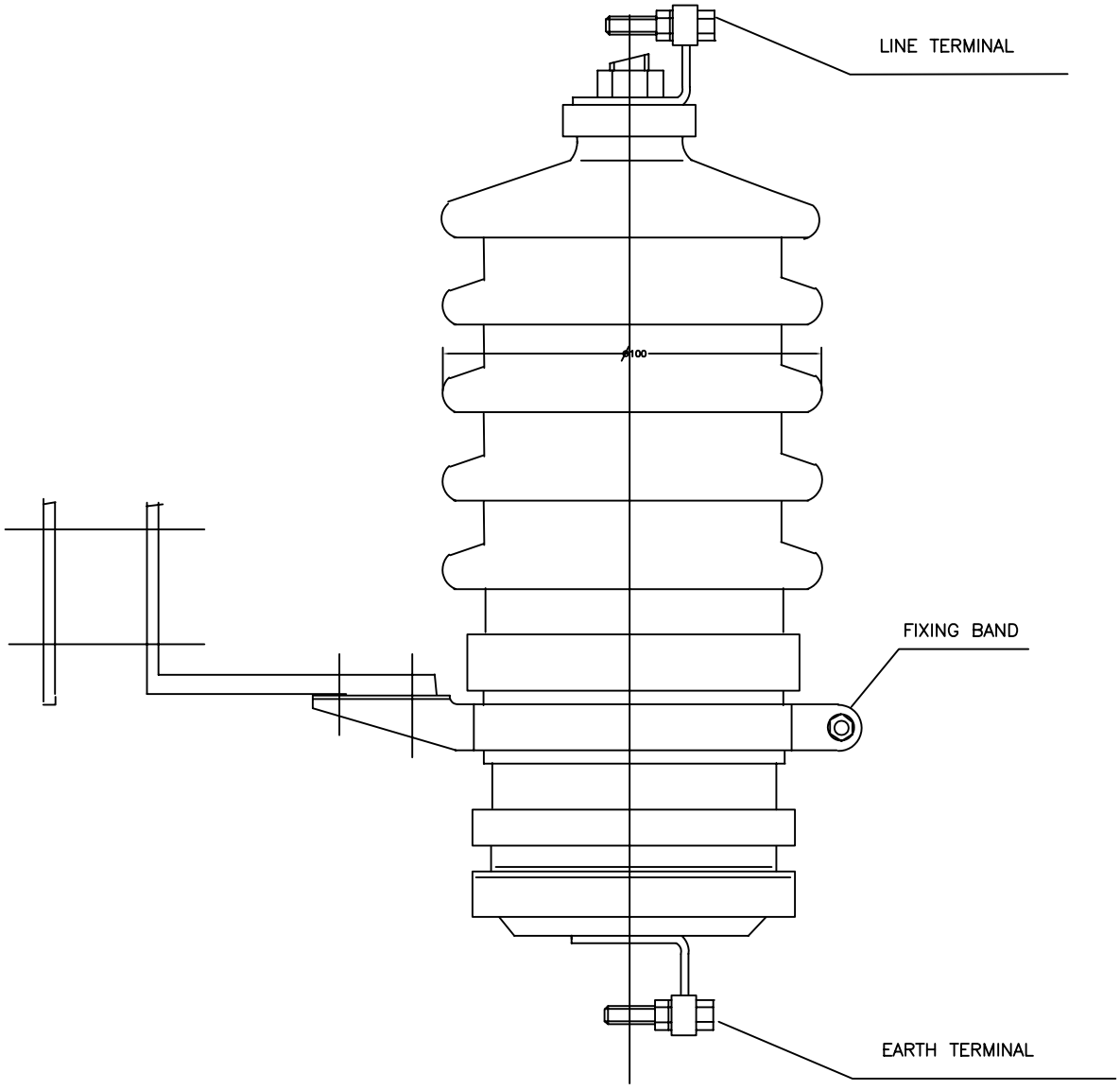




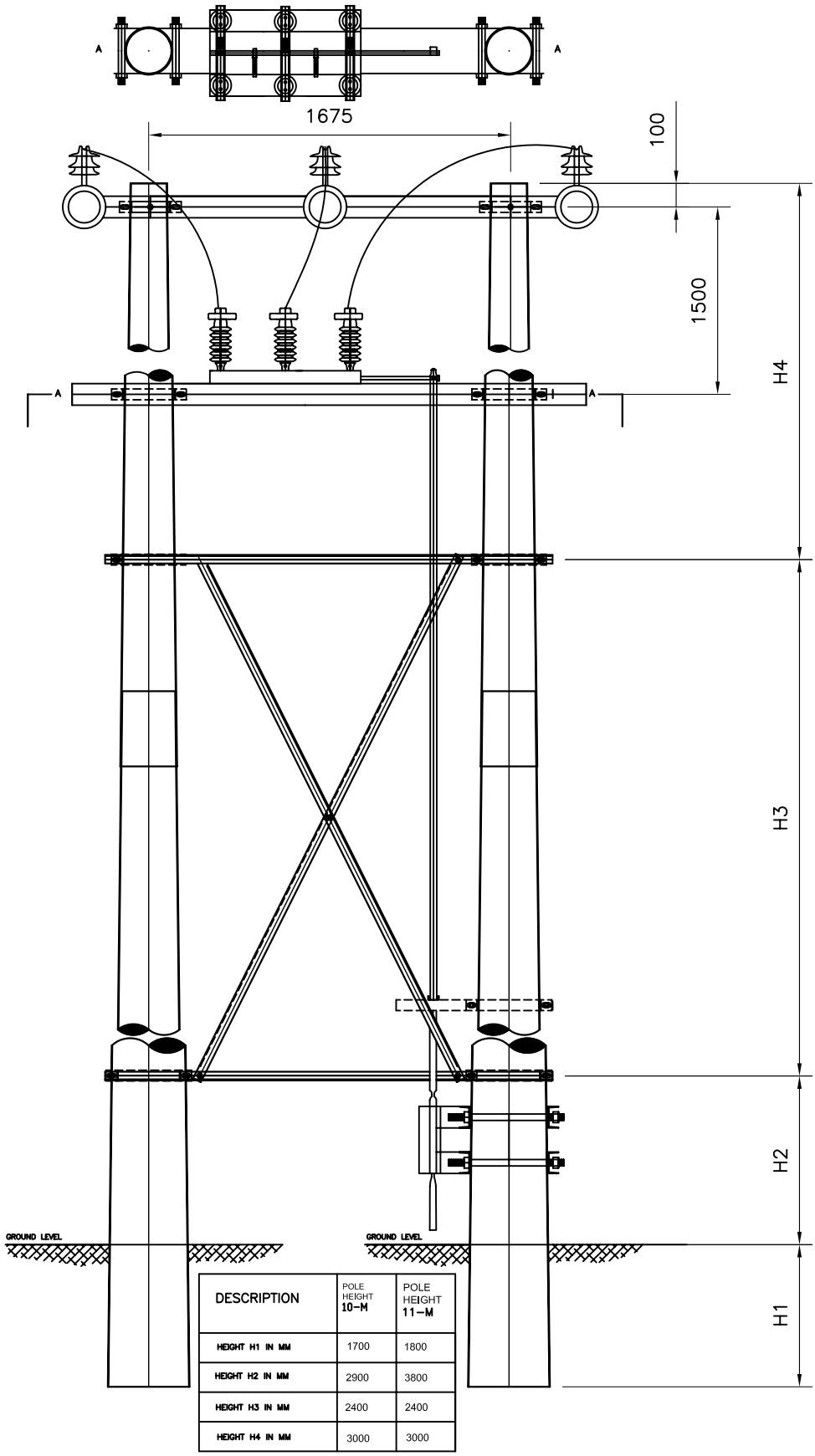
Terminal : Bolted Type Suitable for copper wire 8mm Porcelian color : Brown/white

Drawing **CS11-LM-17**	**Cut Out Switch**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

9 kV Silicon Polymer Lighting Arrestor

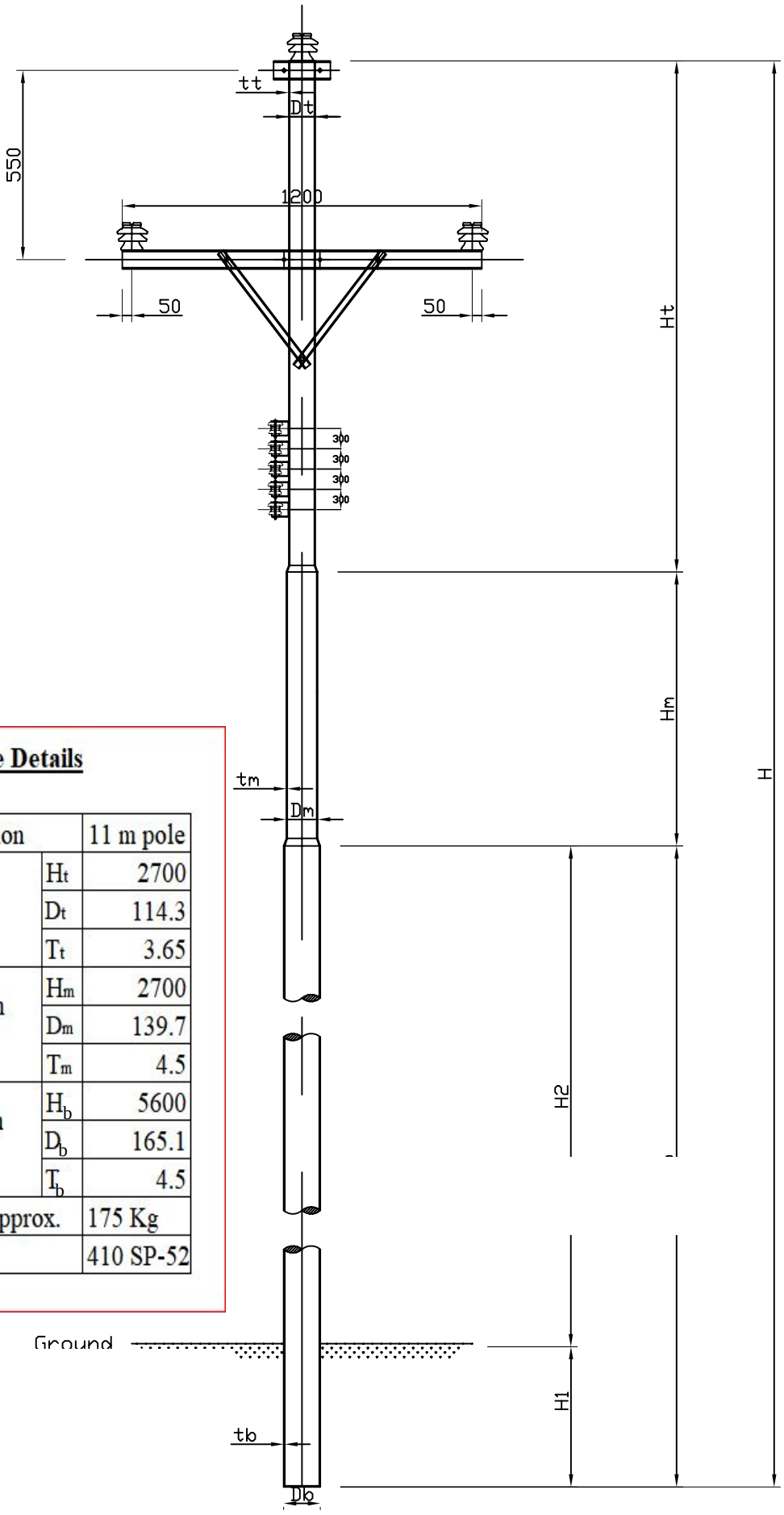


Drawing **CS11-LM-18**	**Lightning Arrester**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services



DESCRIPTION	POLE HEIGHT 10-M	POLE HEIGHT 11-M
HEIGHT H1 IN MM	1700	1800
HEIGHT H2 IN MM	2900	3800
HEIGHT H3 IN MM	2400	2400
HEIGHT H4 IN MM	3000	3000

Drawing **CS11-LM-19**	**10/11 m Pole Mounting Disconnet Switch**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services



Pole Details

Description		11 m pole
Top Section (mm)	H_t	2700
	D_t	114.3
	T_t	3.65
Middle Section (mm)	H_m	2700
	D_m	139.7
	T_m	4.5
Bottom Section (mm)	H_b	5600
	D_b	165.1
	T_b	4.5
Weight (Kg) Approx.		175 Kg
IS		410 SP-52

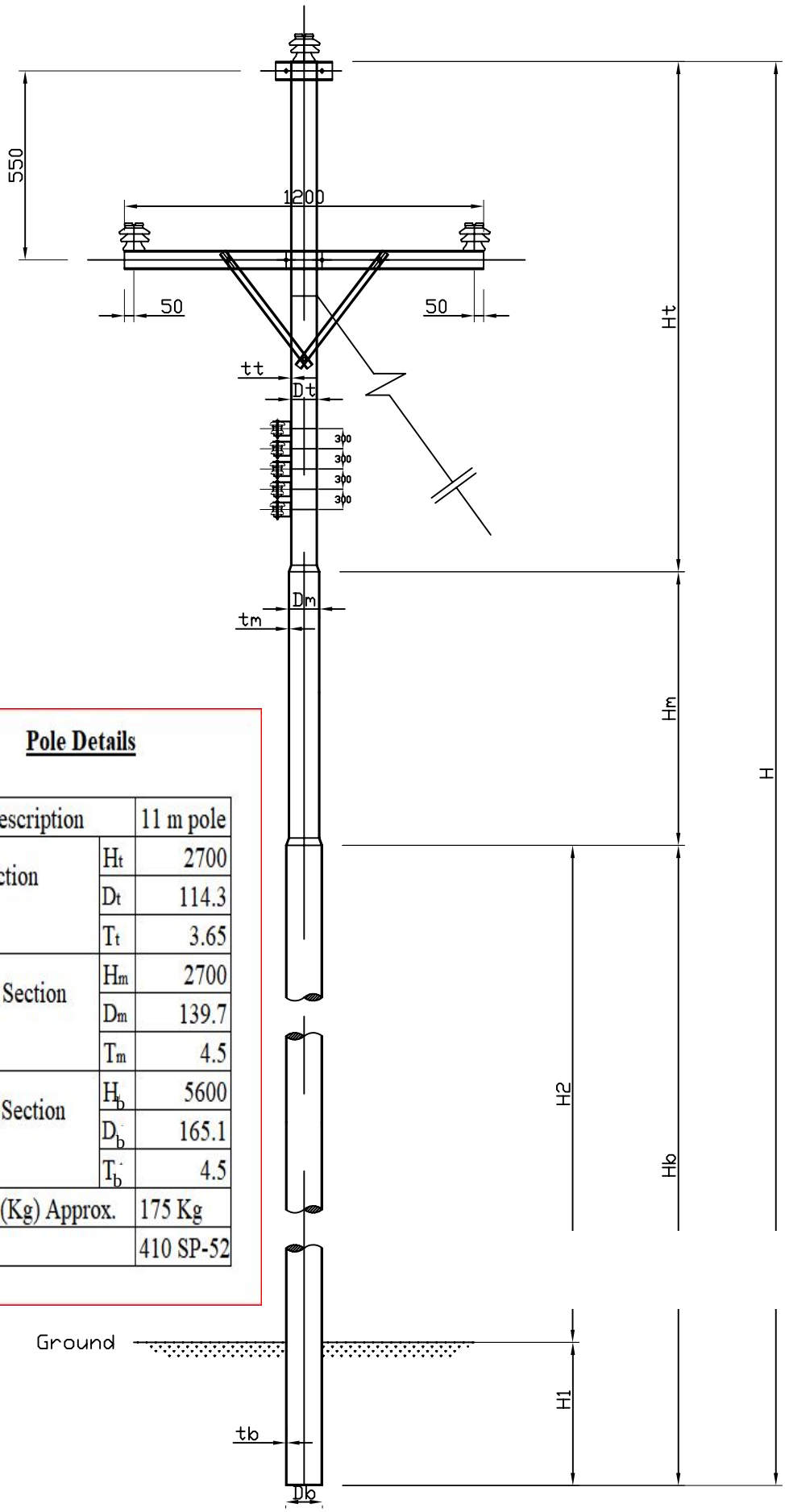
Drawing	11kV, 10/11 m ST Pole	NEPAL ELECTRICITY AUTHORITY
CS11-STP-01	**No Deviation (0 - 7 deg)**	**Technical Services / Commercial Department**
		Distribution and Consumer Services

Refer Drawing No: CS11-STP- 01

S.No.	QTY.	UNIT	MATERIAL
1	3	NOS	PIN INSULATOR
2	3	NOS	INSULATOR PIN
3	3	NOS	PREFORM PIN TIES (TOP TIES)
4	1	NOS	STEEL CROSSARM CHANNEL (100x 50x6.4x300) mm.
5	1	SET	POLE CLAMP WITH NUT,BOLT AND WASHERS (TC1)
6	1	NOS	STEEL CROSSARM CHANNEL (100x 50x6.4x1200) mm.
7	1	SET	POLE CLAMP WITH NUT,BOLT AND WASHERS (TC2)
8	2	NOS	FLAT CROSSARM BRACE(40x 6.0x660) mm
9	2	SET	BOLTS WITH SUITABLE NUTS AND WASHERS (12 x51) mm
10	1	SET	BOLTS WITH SUITABLE NUTS AND WASHERS (16 x305) mm
11	1	NOS	STEEL TUBULAR POLE 10 m /11m

CONSTRUCTION STANDARDS
11 kV SINGLE ARM STRUCTURE (SA)
STEEL TUBULAR POLE

NEPAL ELECTRICITY AUTHORITY
Technical Service/ Commercial Department
Distribution and Consumer Services



Pole Details

Description		11 m pole
Top Section (mm)	H_t	2700
	D_t	114.3
	T_t	3.65
Middle Section (mm)	H_m	2700
	D_m	139.7
	T_m	4.5
Bottom Section (mm)	H_b	5600
	D_b	165.1
	T_b	4.5
Weight (Kg) Approx.		175 Kg
IS		410 SP-52

Drawing		
CS11-STP-02	**11kV, 10/11 m ST Pole** **Low Angle (8 - 15 deg)**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

Refer Drawing No: CS11-STP- 02

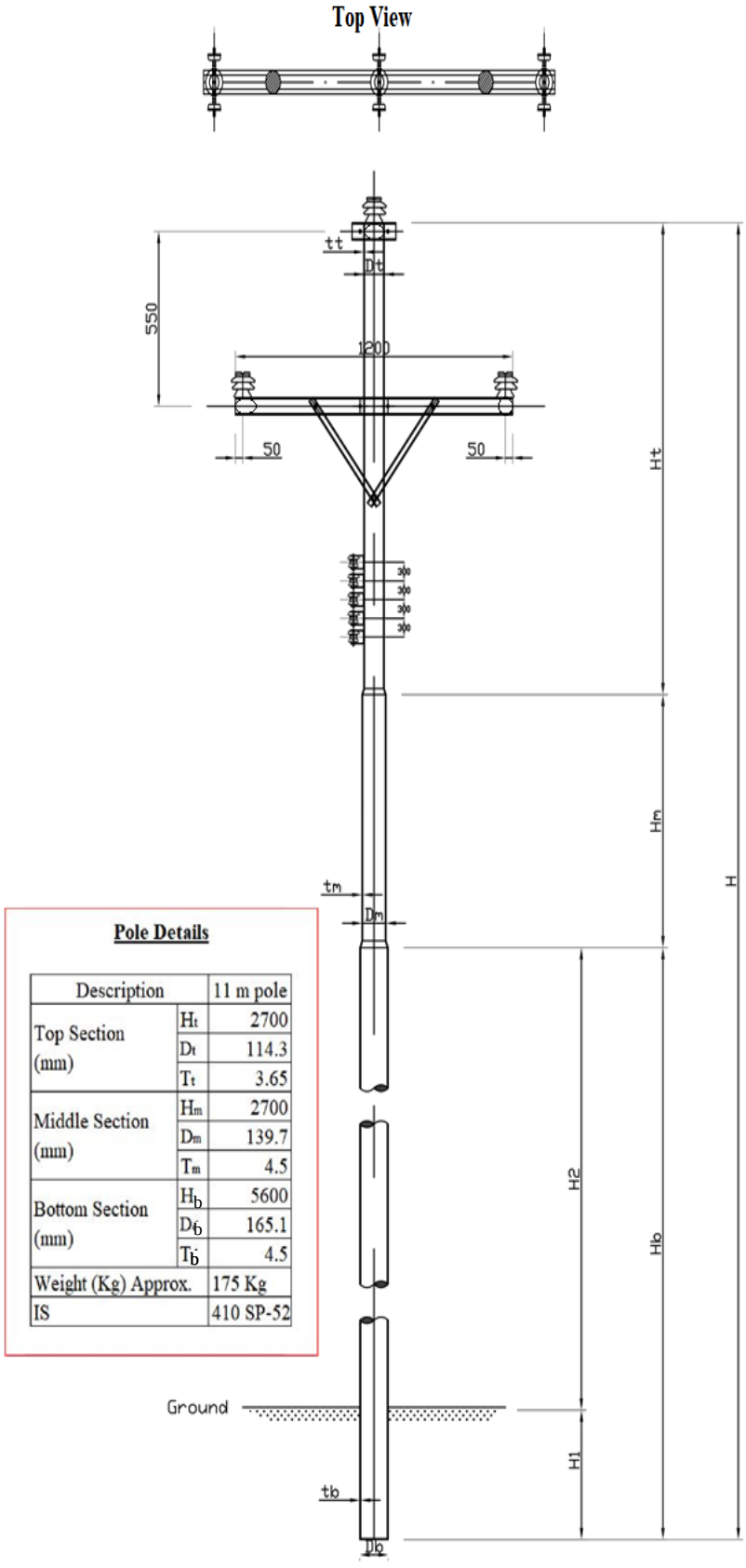
S.No.	QTY.	UNIT	MATERIAL
1	3	NOS	PIN INSULATOR
2	3	NOS	INSULATOR PIN
3	3	NOS	PREFORM PIN TIES (TOP TIES)
4	1	NOS	STEEL CROSSARM CHANNEL (100 x 50 x 6.4 x 300) mm.
5	1	NOS	STEEL CROSSARM CHANNEL (100 x 50 x 6.4 x 1200) mm.
6	2	NOS	FLAT CROSSARM BRACE (40x 6.0 x 660) mm
7	2	SET	BOLTS WITH SUITABLE NUTS AND WASHERS (12 x 51) mm
8	1	SET	BOLTS WITH SUITABLE NUTS AND WASHERS (16 x 203) mm
9	1	SET	POLE CLAMP WITH NUT,BOLT AND WASHERS (TC1)
10	1	SET	POLE CLAMP WITH NUT,BOLT AND WASHERS (TC4)
11	1	LOT	HT STAY SET (AS REQUIRED)
12	1	NOS	STEEL TUBULAR POLE 10 m /11m

CONSTRUCTION STANDARDS

11 kV SINGLE ARM STRUCTURE (PLA STEEL TUBULAR POLE , LOW ANGLE 8^0 TO 15^0

NEPAL ELECTRICITY AUTHORITY

Technical Service/ Commercial Department
Distribution and Consumer Services



Pole Details

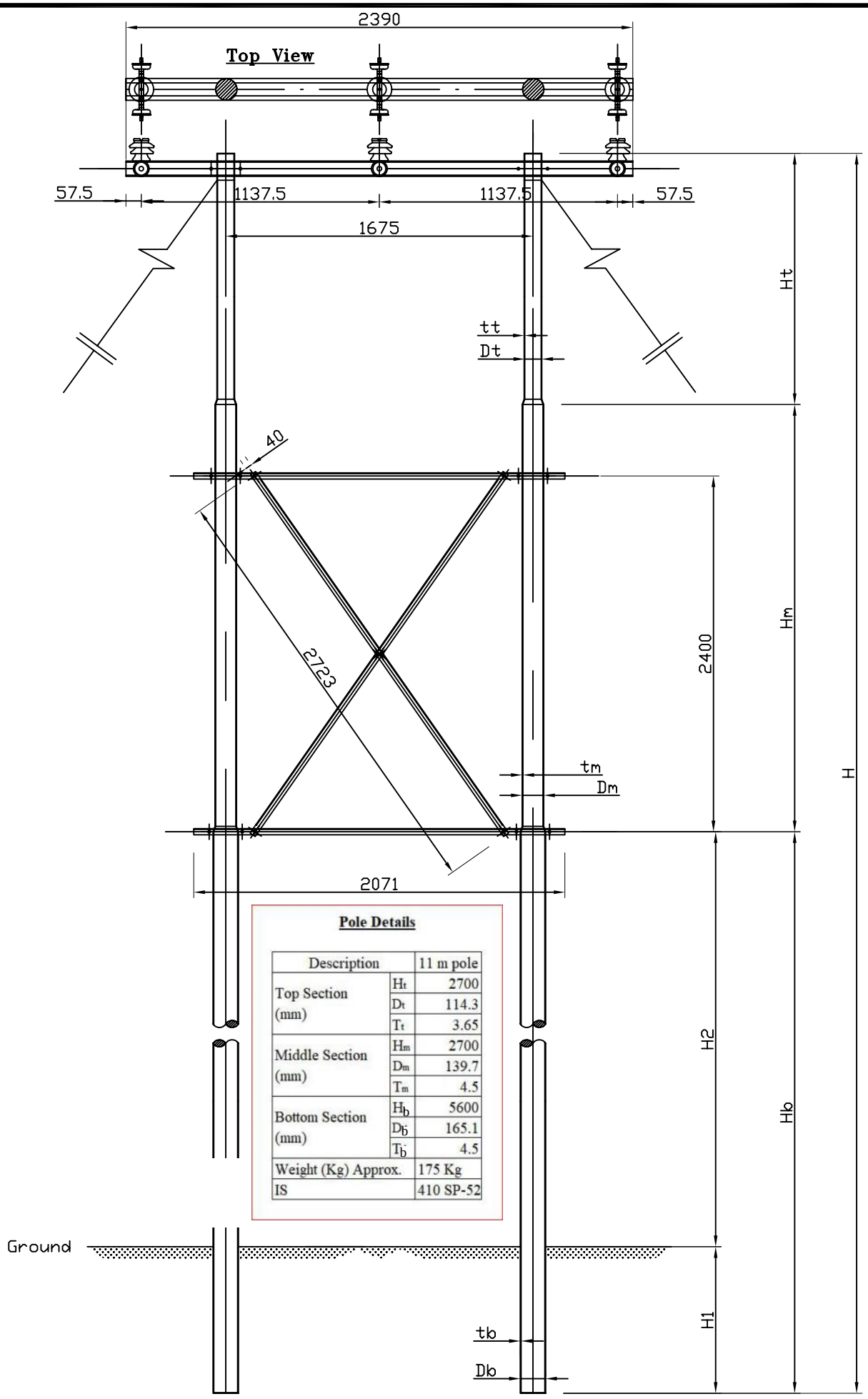
Description		11 m pole
Top Section (mm)	H_t	2700
	D_t	114.3
	T_t	3.65
Middle Section (mm)	H_m	2700
	D_m	139.7
	T_m	4.5
Bottom Section (mm)	H_b	5600
	D_b	165.1
	T_b	4.5
Weight (Kg) Approx.		175 Kg
IS		410 SP-52

11 KV Double Dead End Structure

DRAWING NO: CS11- STP-08

S.No.	QTY.	UNIT	MATERIAL
1	3	NOS	PIN INSULATOR WITH PIN AND NUTS/WASHER
2	6	SET	DISC INSULATOR WITH HARDWARE
3	6	NOS	DEAD END CLAMPS
4	**1**	NOS	STEEL CROSSARM CHANNEL (50x100x300) mm.
5	**1**	NOS	STEEL CROSSARM CHANNEL (50x100x1200) mm.
6	4	NOS	FLAT CROSSARM BRACE (40 X 6 X 660) mm
7	1	LOT	BOLTS WITH SUITABLE NUTS AND WASHERS
8	3	NOS	PREFORMED WIRE (TOP TIE)
9	3	NOS	INSULATED PIERCING CONNECTOR
10	1	NOS	STEEL TUBULAR POLE - 11 M

CONSTRUCTION STANDARDS **11 kV DOUBLE DEAD END STRUCTURE (DDE)** **STEEL TUBULAR POLE**	**NEPAL ELECTRICITY AUTHORITY**



Pole Details

Description		11 m pole
Top Section (mm)	H_t	2700
	D_t	114.3
	T_t	3.65
Middle Section (mm)	H_m	2700
	D_m	139.7
	T_m	4.5
Bottom Section (mm)	H_b	5600
	D_b	165.1
	T_b	4.5
Weight (Kg) Approx.		175 Kg
IS		410 SP-52

Drawing **CS11-STP-04**	**11kV, 10/11 m ST Pole** **High Angle (Above 30 deg)**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

Refer Drawing No: CS11-STP- 04

S.No.	QTY.	UNIT	MATERIAL
1	3	NOS	PIN INSULATOR
2	3	NOS	INSULATOR PIN
3	3	NOS	PREFORM PIN TIES (TOP TIES)
4	6	NOS	DISC INSULATOR
5	6	SET	BACK STRAP
6	6	SET	TENSION SET WITH BALL AND SOCKET EYE
7	6	NOS	PG CLAMP
8	2	NOS	STEEL CROSSARM CHANNEL (100x 50x 6.4 x 2390) mm.
9	2	NOS	BRACING ANGLE (40 x 40 x 5 x 2071) mm.
10	2	NOS	CROSSARM BRACING ANGLE (40 x 40 x 5.0 x 2723) mm
11	17	SET	BOLTS WITH SUITABLE NUTS AND WASHERS (12 x 51) mm
12	2	SET	POLE CLAMP WITH NUT,BOLT AND WASHERS (TC4)
13	2	SET	POLE CLAMP WITH NUT,BOLT AND WASHERS (TC5)
14	4	SET	DOUBLE ARMING BOLTS WITH SUITABLE NUTS AND WASHERS (16 x305) mm
15	6	NOS	STRAP FOR INSULATOR STRING (50 x 6 x 396) mm
16	5	SET	HT STAY SET (TYPE AS REQUIRED)
17	2	NOS	STEEL TUBULAR POLE 10 m /11m

CONSTRUCTION STANDARDS

11 kV H- STRUCTURE
STEEL TUBULAR POLE ABOVE 30^0

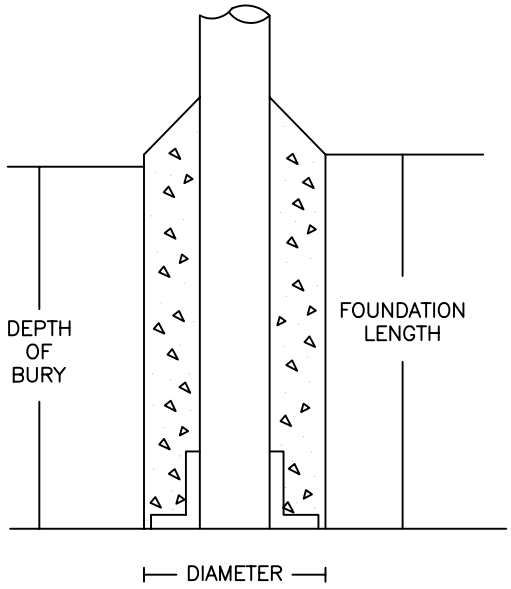
NEPAL ELECTRICITY AUTHORITY

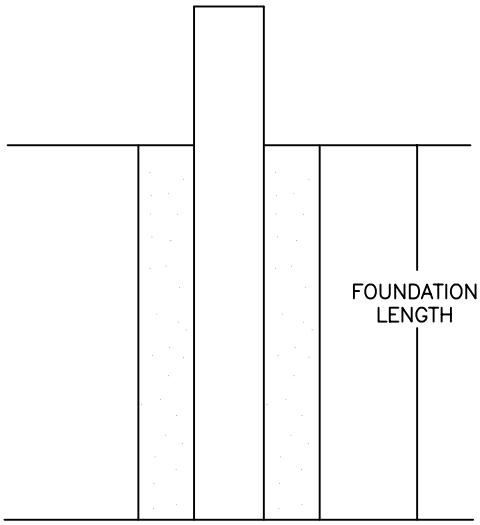
Technical Service/ Commercial Department
Distribution and Consumer Services

Pole Setting, Stays and Anchors

PLOE LENGTH (m.)	DEPTH OF BURIAL (m.)	FOUNDATION LENGTH (m.)	SOIL CLASS – Kg./Sq. mm.						
			0.5	0.75	1.0	2.0	3.0	4.0	5.0
			FOUNDATION DIAMETER – mm.						
9	1.5	1.6	1050	860	750	530	430	N/R	N/R
11	1.8	1.9	1080	880	760	540	440	N/R	N/R

N/R = NOT REQUIRED





FUNDATION FOR STEEL TUBULAR
AND CONCRETE POLES

FOUNDATION

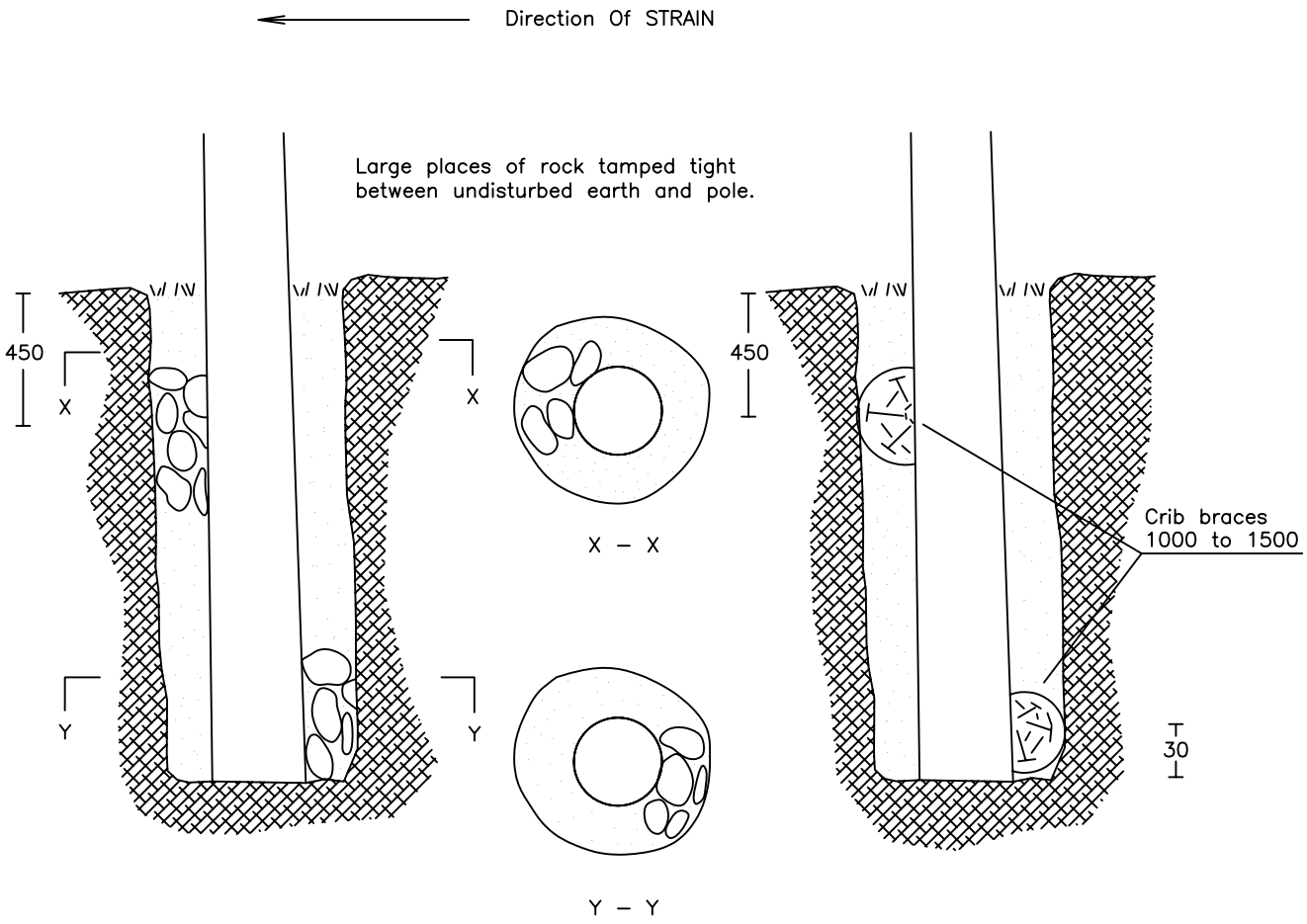
CONCRETE TO BE USED FOR FOUNDATIONS:

1 PART CEMENT
2 PART SAND
3 PART AGGREGATE
— BY VOLUME

WATER – CEMENT RATIO:
32 LITERS – 50Kg. APPROX.

Note: In case of non–galvanized steel pole the foundation above ground level shall be 0.4 m more than that is shown in the drawing.

Drawing CSG-POLE-01	**Pole Setting**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

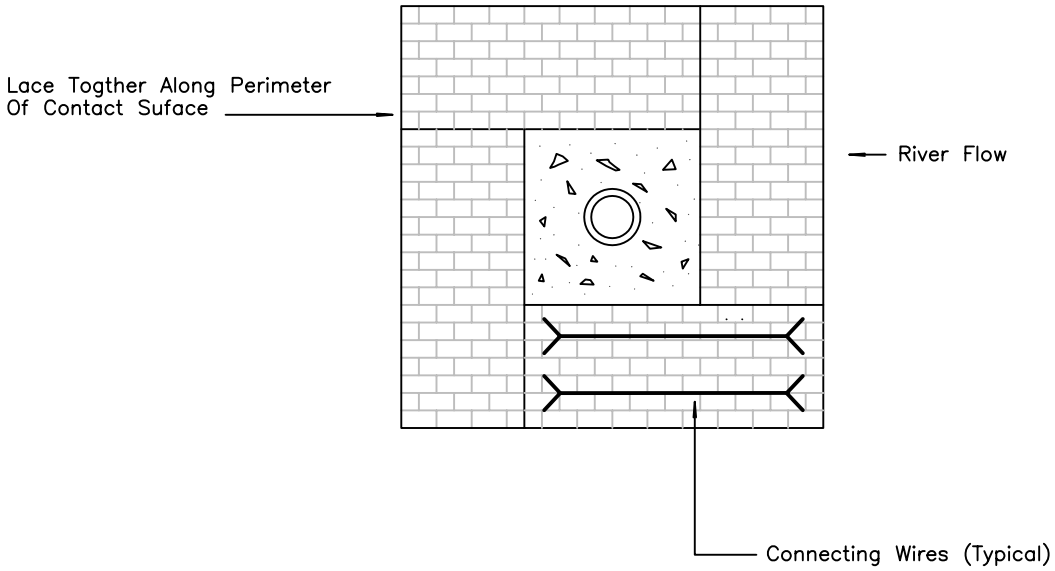


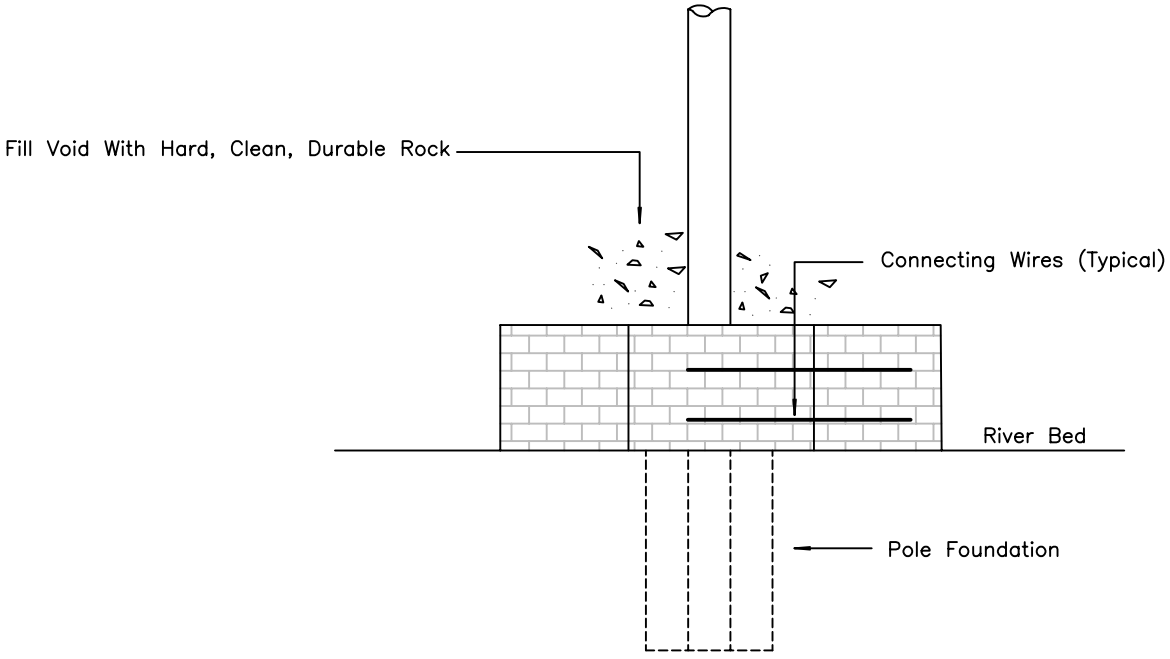
For use where ground is soild or compact.

For use where ground is soft

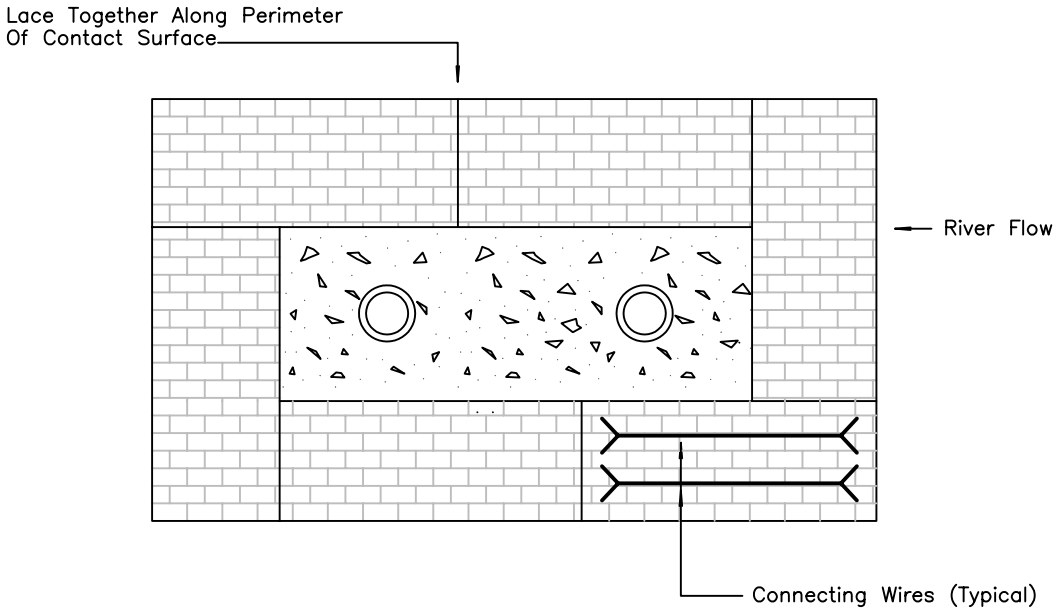
NOTE:
CRIBBING FOR POLES WITHOUT CONCRETE FUNDATIONS.

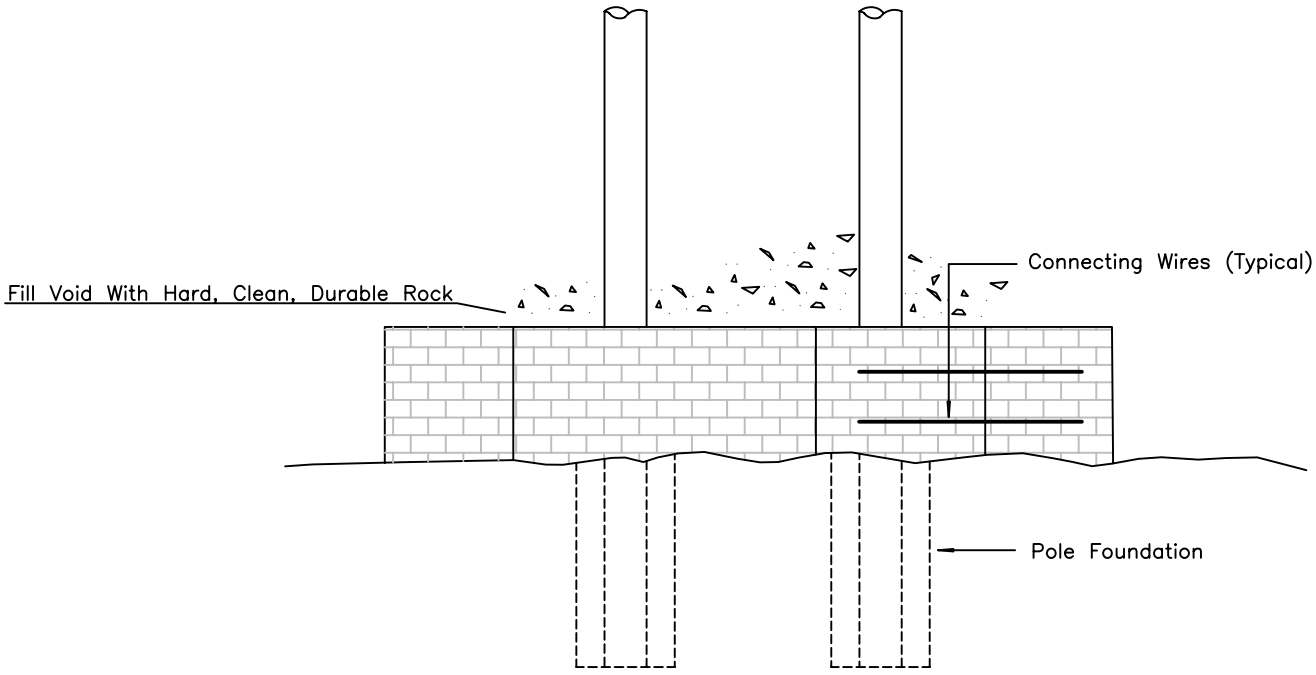
Drawing **CSG-POLE-02**	**Pole Burial**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services



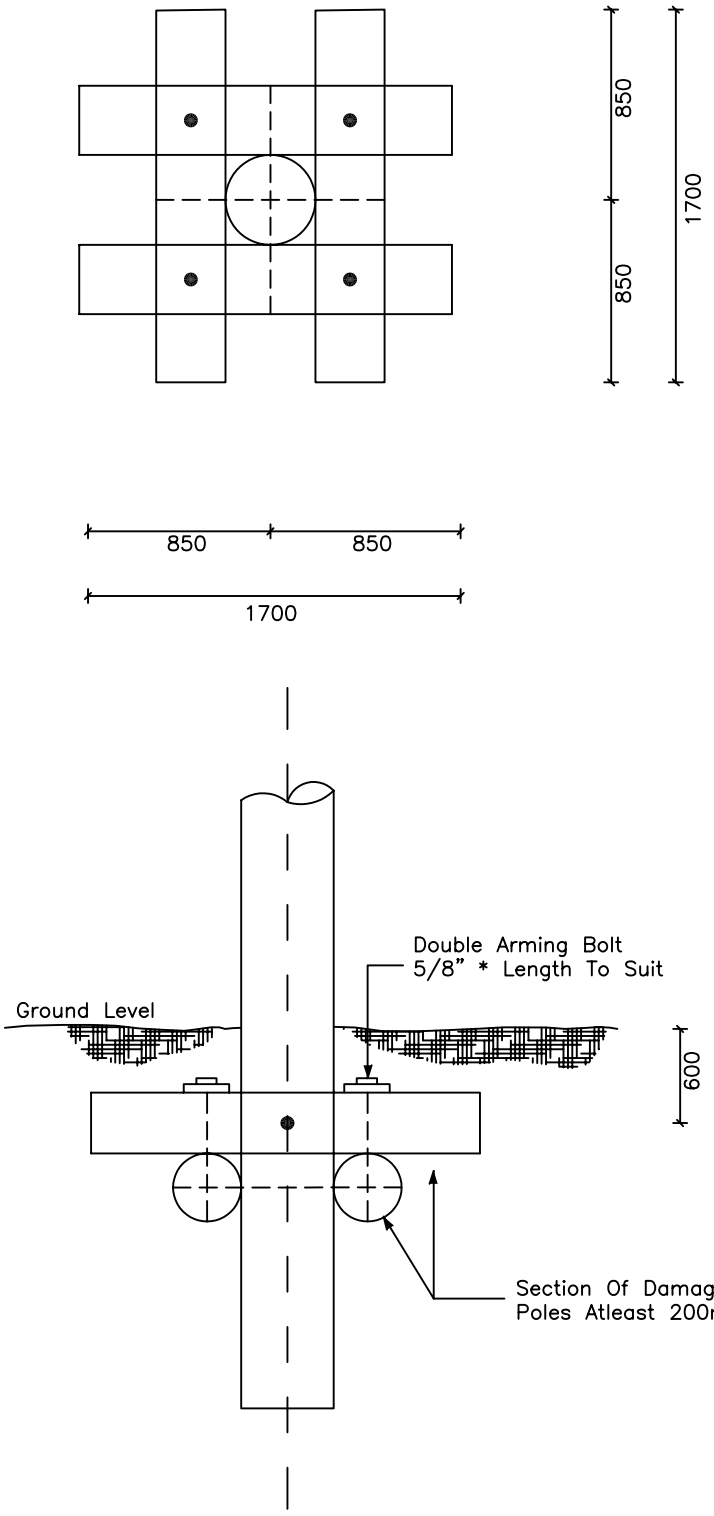


Drawing **CSG-POLE-03**	**Pole Protection in Shallow River Beds**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

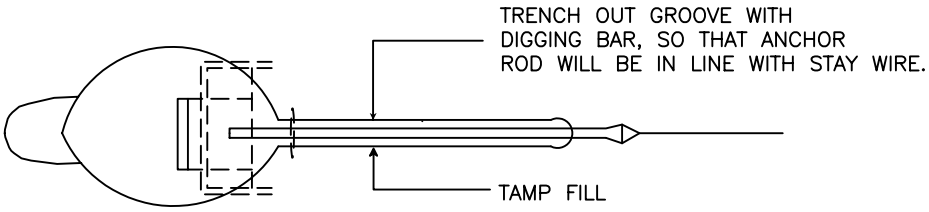


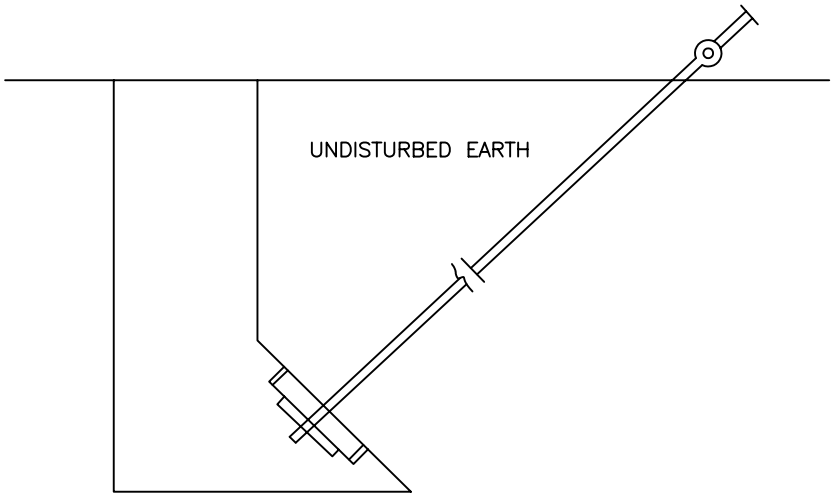


Drawing **CSG-POLE-04**	**Pole Protection in Shallow River Beds**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services



Drawing **CSG-POLE-05**	**Pole Bog Shoe**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services





MAKE UNDERCUT AT BOTTOM OF ANCHOR HOLE,
PLATE TO BEAR AGAINST UNDISTURBED EARTH.

1. BACKFILL SHALL BE THOROUGHLY TAMPED.
2. BACKFILL FOR ANCHORS PLACED IN SOFT OR UNSTABLE SOIL SHALL BE 50MM GRAVEL PLACED TO DEPTH OF 1000 MM ABOVE ANCHOR PLATE.

Drawing **CSG-STAY-01**	**Stays and Anchors**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

Refer Drawing No: CSG-Stay-02

S.No.	QTY.	UNIT	MATERIAL (HT-STAY)	MATERIAL (LT-STAY)	QTY.
1	1	NO	STAY PLATE (MS 600 X 600 MM X 6 MM)	STAY PLATE (MS 300 X 300 MM X 6MM)	1
2	1	NO	STAY ROD 19MM	STAY ROD 16 MM	1
3	2	Set	TURN BUCKLE	TURN BUCKLE	2
4	2	NO	STAY INSULATOR	STAY INSULATOR	2
5	4	SET	PREFORM WIRE COMPATIBLE FOR STAY WIRE OF SIZE 7/3.25 mm	PREFORM WIRE COMPATIBLE FOR STAY WIRE OF SIZE 7/2.64 mm	4
6	12	M	7/3.25 mm SWG STAY WIRE	7/2.64 mm SWG STAY WIRE	9
7	1	Set	EYE BOLT AND WASHER	EYE BOLT AND WASHERS	1
8	2	NOS	THIMBLE	THIMBLE	2

CONSTRUCTION STANDARDS
HT AND LT STAY- TYPE A
PSC POLE

NEPAL ELECTRICITY AUTHORITY
Technical Service/ Commercial Department
Distribution and Consumer Services

Refer Drawing No: CSG-Stay-02

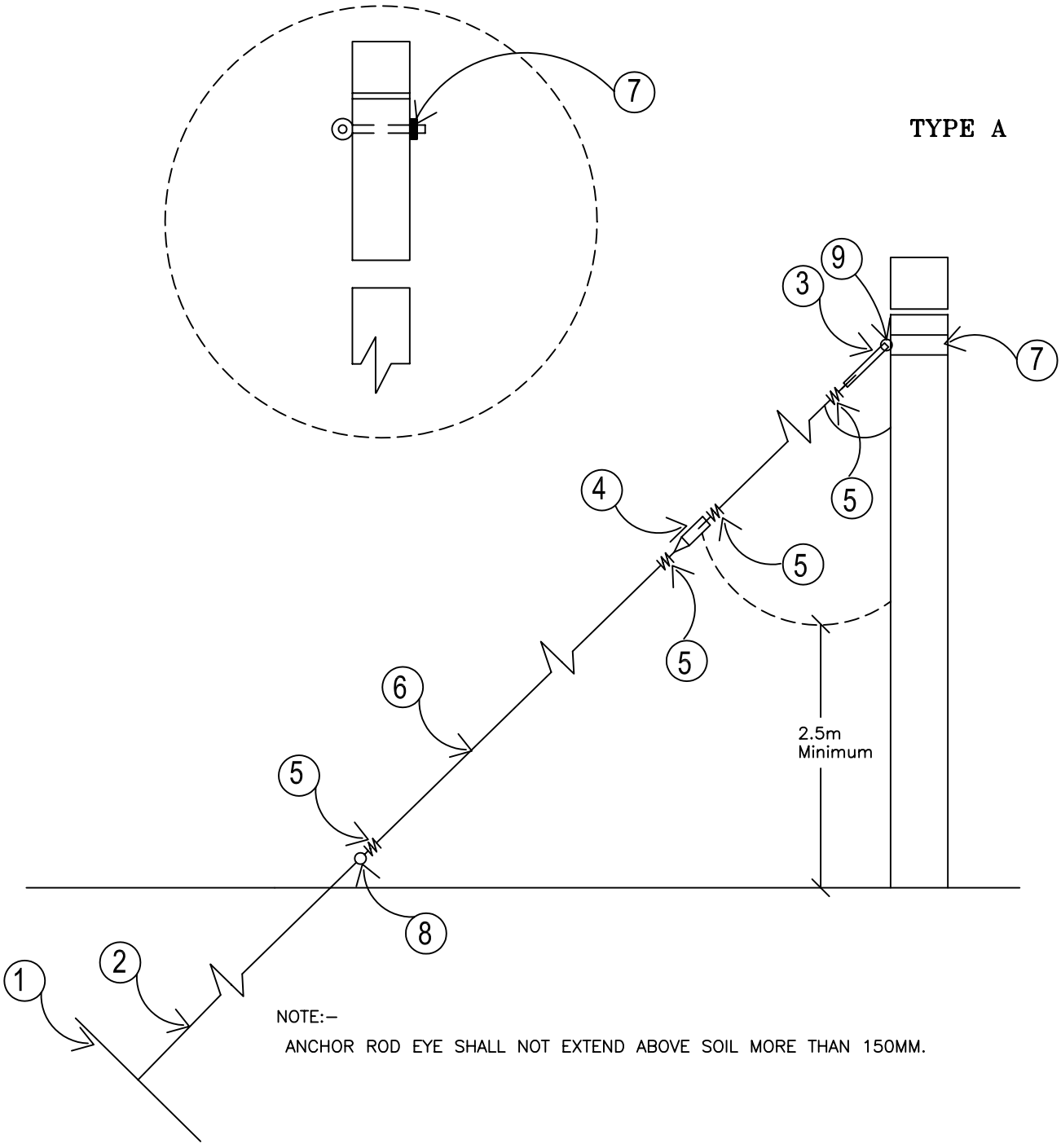
S.No.	QTY.	UNIT	MATERIAL (HT-STAY)	MATERIAL (LT-STAY)	QTY.
1	1	NO	STAY PLATE (MS 600 X 600 MM X 6MM)	STAY PLATE (MS 300 X 300 MM X 6MM)	1
2	1	NO	STAY ROD 19MM	STAY ROD 16 MM	1
3	1	Set	TURN BUCKLE	TURN BUCKLE	1
4	1	NO	STAY INSULATOR	STAY INSULATOR	1
5	4	SET	PREFORM WIRE COMPATIBLE FOR STAY WIRE OF SIZE 7/3.25 mm	PREFORM WIRE COMPATIBLE FOR STAY WIRE OF SIZE 7/2.64 mm	4
6	12	M	7/3.25 mm SWG STAY WIRE	7/2.64 mm SWG STAY WIRE	9
7	2	Set	BOLT AND WASHER	BOLT AND WASHERS	2
8	2	NOS	THIMBLE	THIMBLE	2
9	1	NO	DOUBLE EYE (TWISTED)	DOUBLE EYE (TWISTED)	1

CONSTRUCTION STANDARDS
HT AND LT STAY- TYPE A
TELESCOPIC POLE

NEPAL ELECTRICITY AUTHORITY
Technical Service/ Commercial Department
Distribution and Consumer Services

PSC POLE

TYPE A



NOTE:–

ANCHOR ROD EYE SHALL NOT EXTEND ABOVE SOIL MORE THAN 150MM.

Drawing **CSG-STAY-02**	**Stays and Anchors** **HT and LT Stay - Type A**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

Refer Drawing No:CSG-Stay-03

S.No.	QTY.	UNIT	MATERIAL (HT-STAY)	MATERIAL (LT-STAY)	QTY.
1	1	NO	STAY PLATE (MS 600 X 600 MM X 6 MM)	STAY PLATE (MS 300 X 300 MM X 6 MM)	1
2	1	NO	STAY ROD 19MM	STAY ROD 16 MM	1
3	2	Set	TURN BUCKLE	TURN BUCKLE	2
4	2	NO	STAY INSULATOR	STAY INSULATOR	2
5	8	SET	PREFORM WIRE COMPATIBLE FOR STAY WIRE OF SIZE 7/3.25 mm	PREFORM WIRE COMPATIBLE FOR STAY WIRE OF SIZE 7/2.64 mm	8
6	24	M	7/3.25 mm SWG STAY WIRE	7/2.64 mm SWG STAY WIRE	18
7	2	Set	EYE BOLT AND WASHER	EYE BOLT AND WASHERS	2
8	4	NOS	THIMBLE	THIMBLE	4

CONSTRUCTION STANDARDS
HT AND LT STAY- TYPE B
PSC POLE

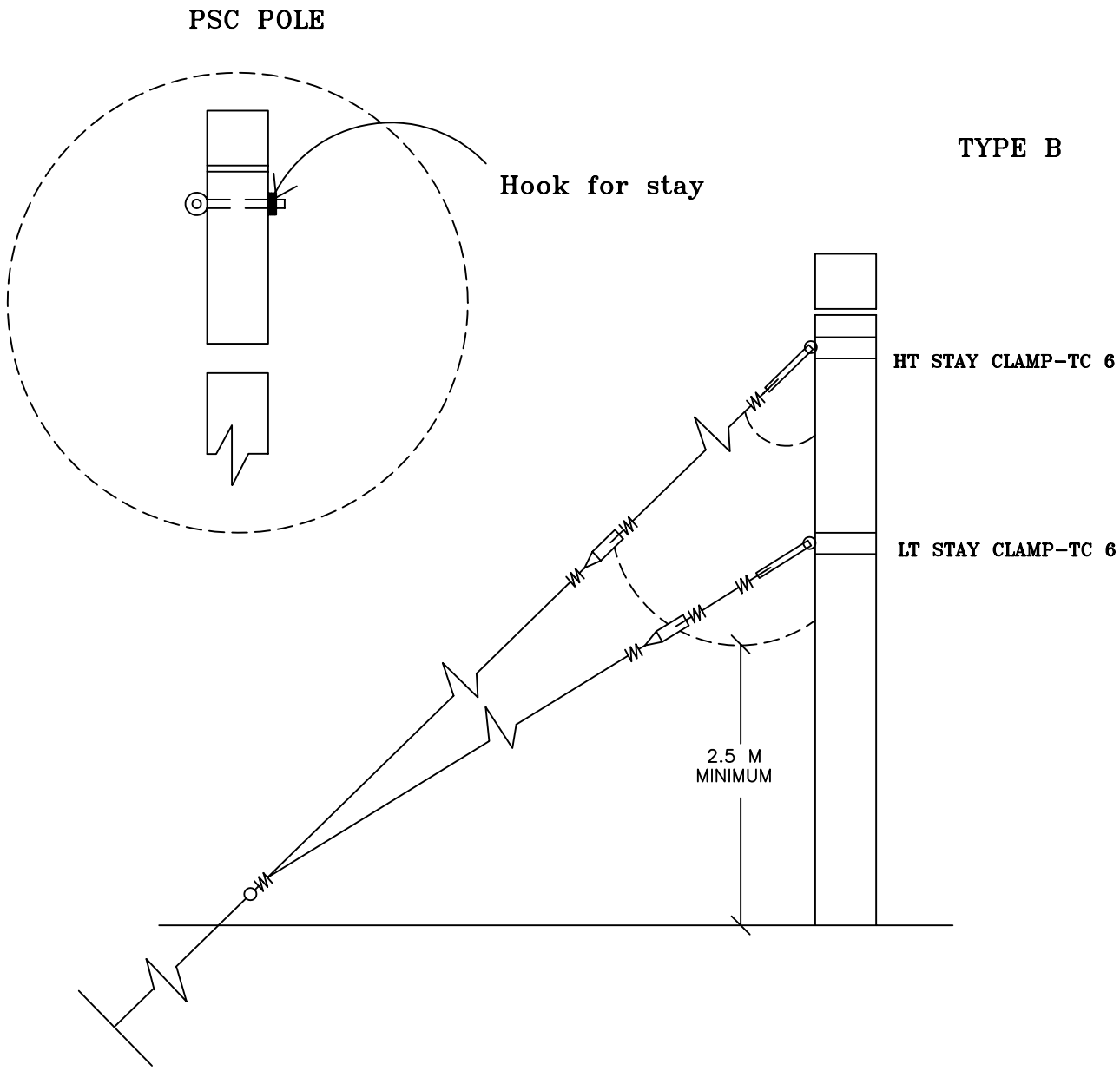
NEPAL ELECTRICITY AUTHORITY
Technical Service/ Commercial Department
Distribution and Consumer Services

Refer Drawing No: CSG-Stay-03

S.No.	QTY.	UNIT	MATERIAL (HT-STAY)	MATERIAL (LT-STAY)	QTY.
1	1	NO	STAY PLATE (MS 600 X 600 MM X 6 MM)	STAY PLATE (MS 300 X 300 MM X 6MM)	1
2	1	NO	STAY ROD 19MM	STAY ROD 16 MM	1
3	2	Set	TURN BUCKLE	TURN BUCKLE	2
4	2	NO	STAY INSULATOR	STAY INSULATOR	2
5	8	SET	PREFORM WIRE COMPATIBLE FOR STAY WIRE OF SIZE 7/3.25 mm	PREFORM WIRE COMPATIBLE FOR STAY WIRE OF SIZE 7/2.64 mm	8
6	24	M	7/3.25 mm SWG STAY WIRE	7/2.64 mm SWG STAY WIRE	18
7	2	Set	POLE CLAMP WITH NUT BOLT AND WASHER	POLE CLAMP WITH NUT BOLT AND WASHER	2
8	4	NOS	THIMBLE	THIMBLE	4
9	2	NO	DOUBLE EYE (TWISTED)	DOUBLE EYE (TWISTED)	2

CONSTRUCTION STANDARDS
HT AND LT STAY- TYPE B
TELESCOPIC POLE

NEPAL ELECTRICITY AUTHORITY
Technical Service/ Commercial Department
Distribution and Consumer Services



NOTE:
STAY ROD EYE SHALL NOT EXTEND ABOVE SOIL MORE THAN 150mm.

Drawing **CSG-STAY-03**	**Stays and Anchors** **HT and LT Stay - Type B**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

Refer Drawing No: CSG-Stay-04

S.No.	QTY.	UNIT	MATERIAL (HT-STAY)	MATERIAL (LT-STAY)	QTY.
1	1	NO	STAY PLATE (MS 600 X 600 MM X 6 MM)	STAY PLATE (MS 300 X 300 MM X 6 MM)	1
2	1	NO	STAY ROD 19MM	STAY ROD 16 MM	1
3	2	Set	TURN BUCKLE	TURN BUCKLE	2
4	2	NO	STAY INSULATOR	STAY INSULATOR	2
5	8	SET	PREFORM WIRE COMPATIBLE FOR STAY WIRE OF SIZE 7/3.25 mm	PREFORM WIRE COMPATIBLE FOR STAY WIRE OF SIZE 7/2.64 mm	8
6	50	M	7/3.25 mm SWG STAY WIRE	7/2.64 mm SWG STAY WIRE	50
7	3	Set	EYE BOLT(16 X 203) MM AND WASHER	EYE BOLT(16 X 203) MM AND WASHERS	3
8	4	NOS	THIMBLE	THIMBLE	4

CONSTRUCTION STANDARDS
HT AND LT STAY- TYPE C
PSC POLE

NEPAL ELECTRICITY AUTHORITY
Technical Service/ Commercial Department
Distribution and Consumer Services

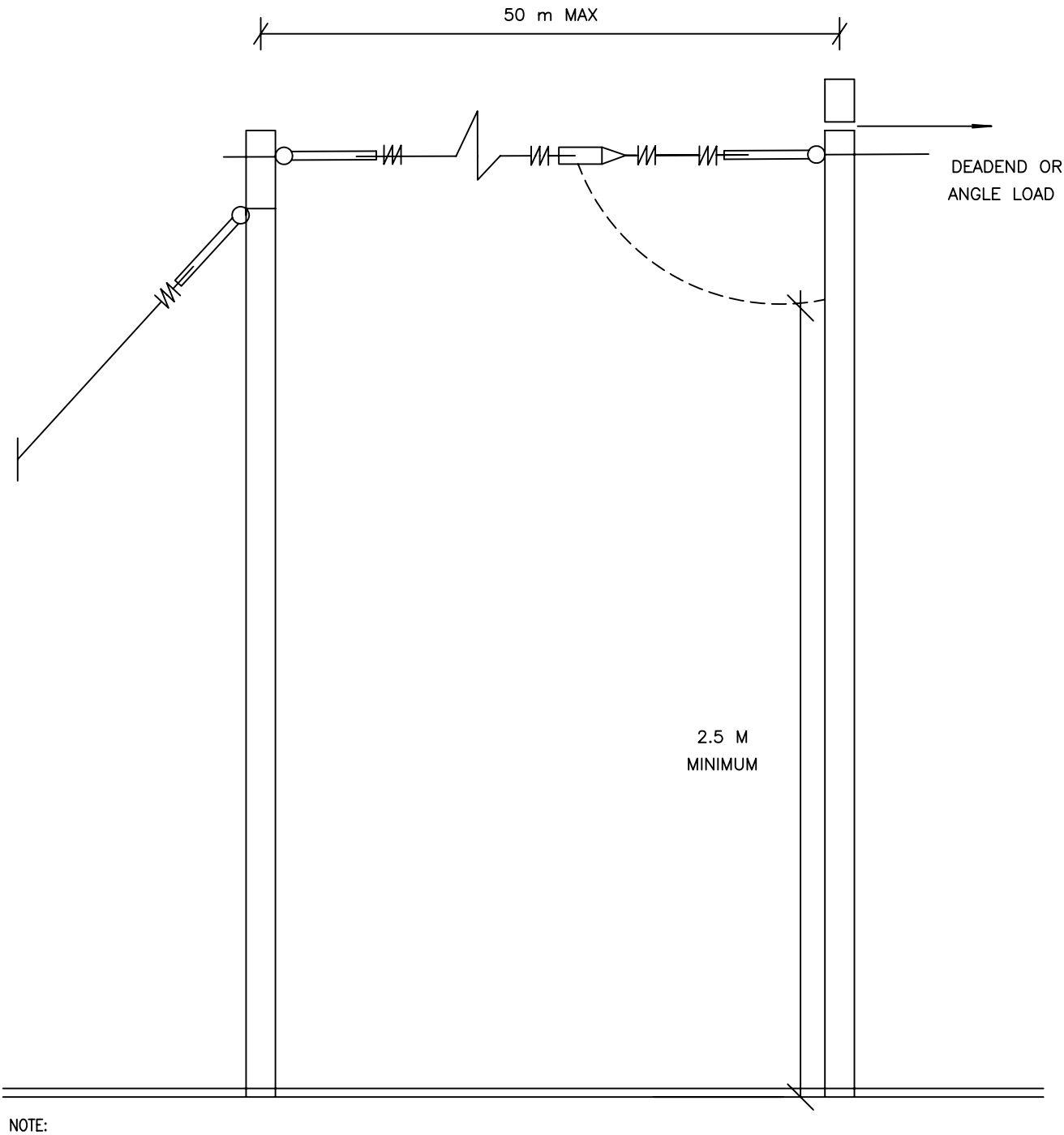
Refer Drawing No: CSG-Stay-04

S.No.	QTY.	UNIT	MATERIAL (HT-STAY)	MATERIAL (LT-STAY)	QTY.
1	1	NO	STAY PLATE (MS 600 X 600 MM X 6 MM)	STAY PLATE (MS 300 X 300 MM X 6 MM)	1
2	1	NO	STAY ROD 19MM	STAY ROD 16 MM	1
3	2	Set	TURN BUCKLE	TURN BUCKLE	2
4	2	NO	STAY INSULATOR	STAY INSULATOR	2
5	8	SET	PREFORM WIRE COMPATIBLE FOR STAY WIRE OF SIZE 7/3.25 mm	PREFORM WIRE COMPATIBLE FOR STAY WIRE OF SIZE 7/2.64 mm	8
6	40	M	7/3.25 mm SWG STAY WIRE	7/2.64 mm SWG STAY WIRE	40
7	2	Set	POLE CLAMP WITH NUT BOLT AND WASHER	POLE CLAMP WITH NUT BOLT AND WASHER	2
8	4	NOS	THIMBLE	THIMBLE	4
9	2	NO	DOUBLE EYE (TWISTED)	DOUBLE EYE (TWISTED)	2

CONSTRUCTION STANDARDS
HT AND LT STAY- TYPE C
TELESCOPIC POLE

NEPAL ELECTRICITY AUTHORITY
Technical Service/ Commercial Department
Distribution and Consumer Services

TYPE C



NOTE:

SPAN OF STAY SHALL BE LIMITED TO A MAXIMUM LENGTH OF 50 METERS.

Drawing **CSG-STAY-04**	**Stays and Anchors** **HT and LT Stay - Type C**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

NOTES

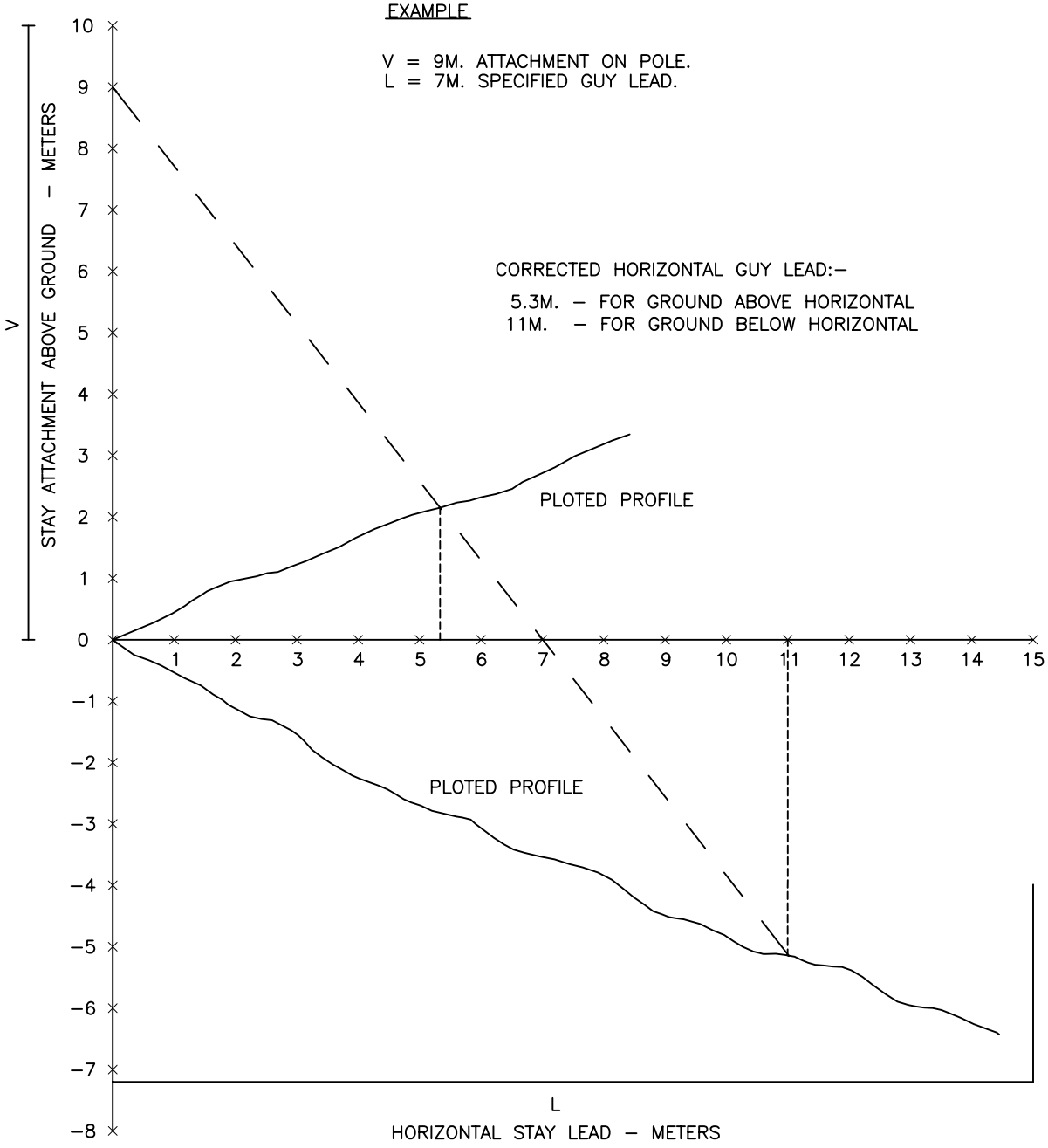
A. PLOT APPROXIMATE GROUND LINE PROFILE UNDER PROPOSED STAY.

B. SELECT A POINT ON VERTICAL SCALE "V" CORESPONDING TO GUY ATTACH– MENT ON POLE , SELECT A POINT ON HORIZONTAL SCALE "L" CORESPONDING TO SPECIFIED STAY LEAD. LAY A STRAIGHT EDGE SO THAT IT PASSES THROUGH THESE TWO POINTS.

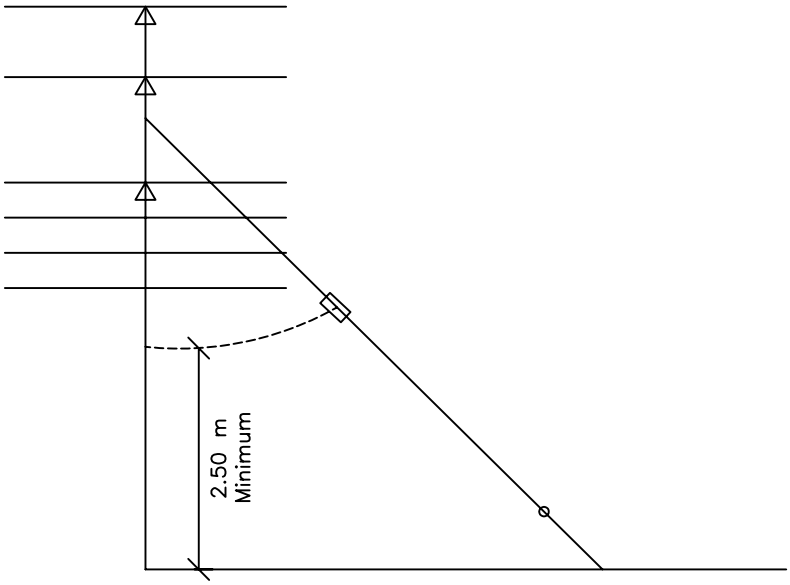
C. PROJECT POINT WHERE STRAIGHT EDGE INTERSECTS GROUND LINE PROFILE VERTICALLY TO HORIZONTAL SCALE "L" AND READ CORRECTED HORIZONTAL STAY LEAD.

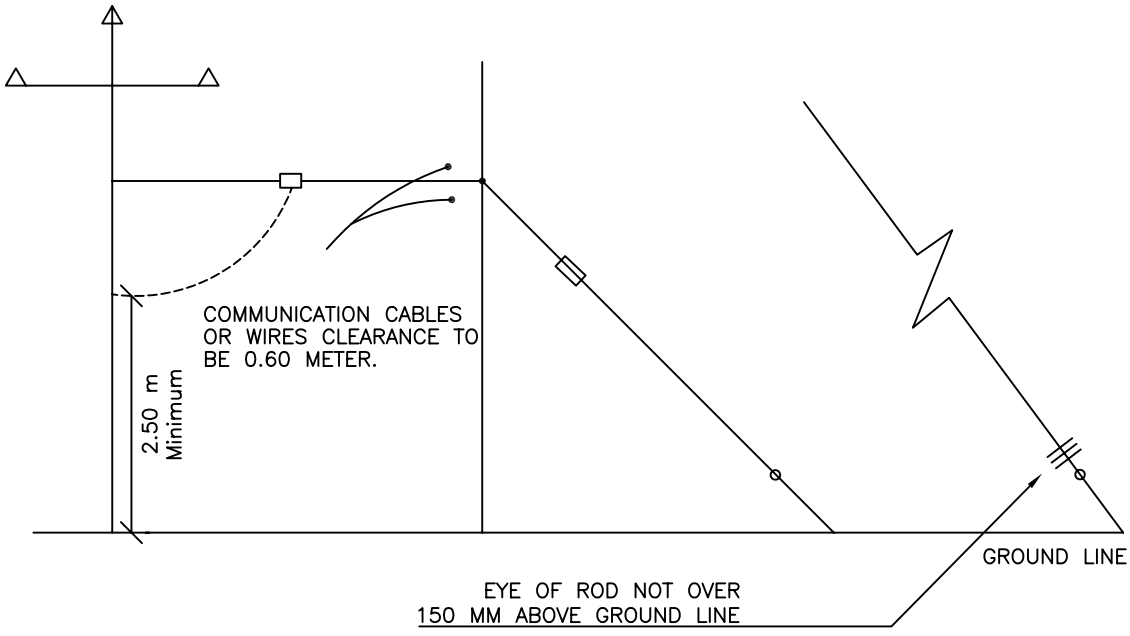
EXAMPLE

V = 9M. ATTACHMENT ON POLE.
L = 7M. SPECIFIED GUY LEAD.

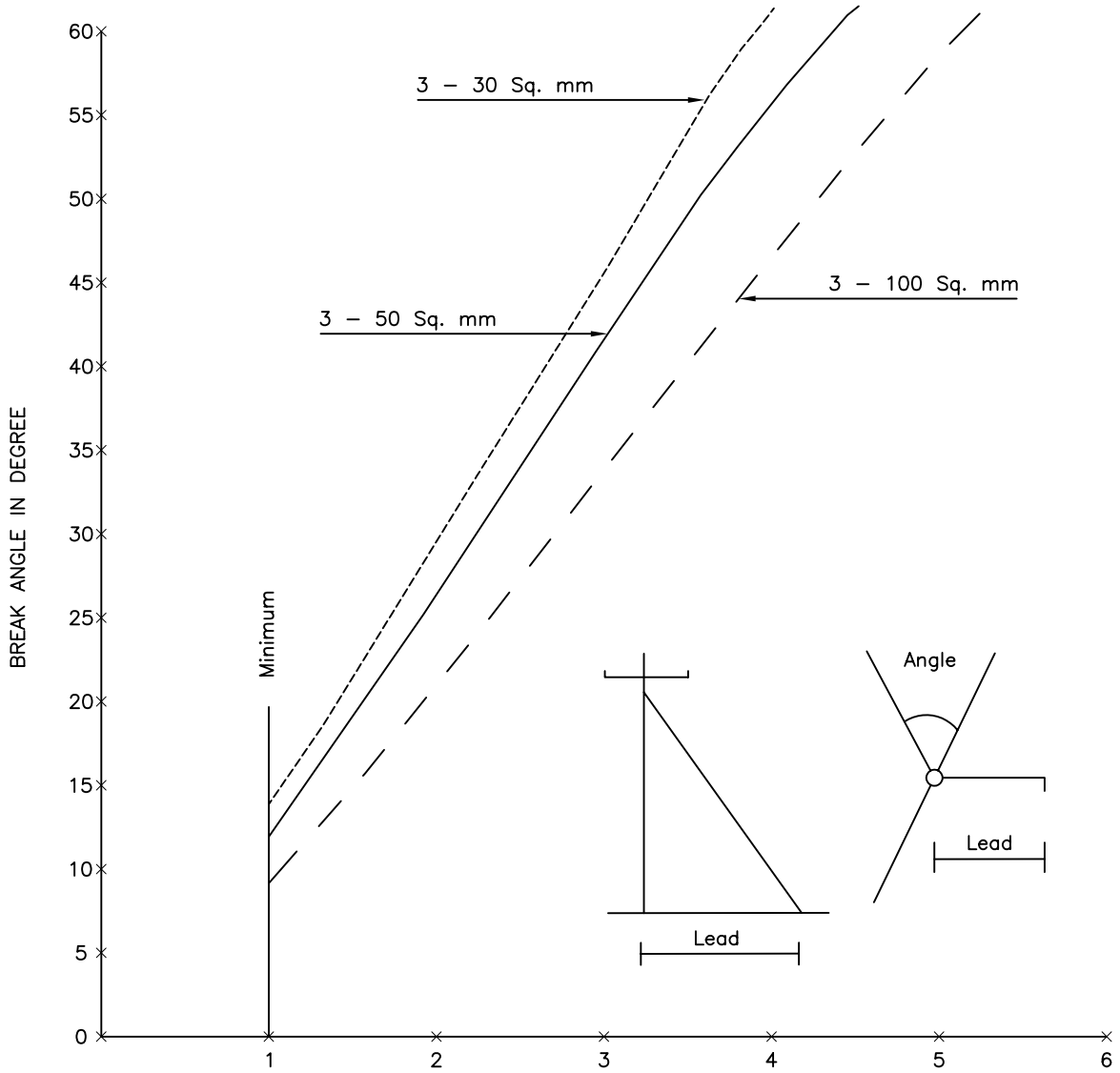


Drawing **CSG-STAY-05**	**Stays and Anchors** **Stay Lead Correction Graph**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services



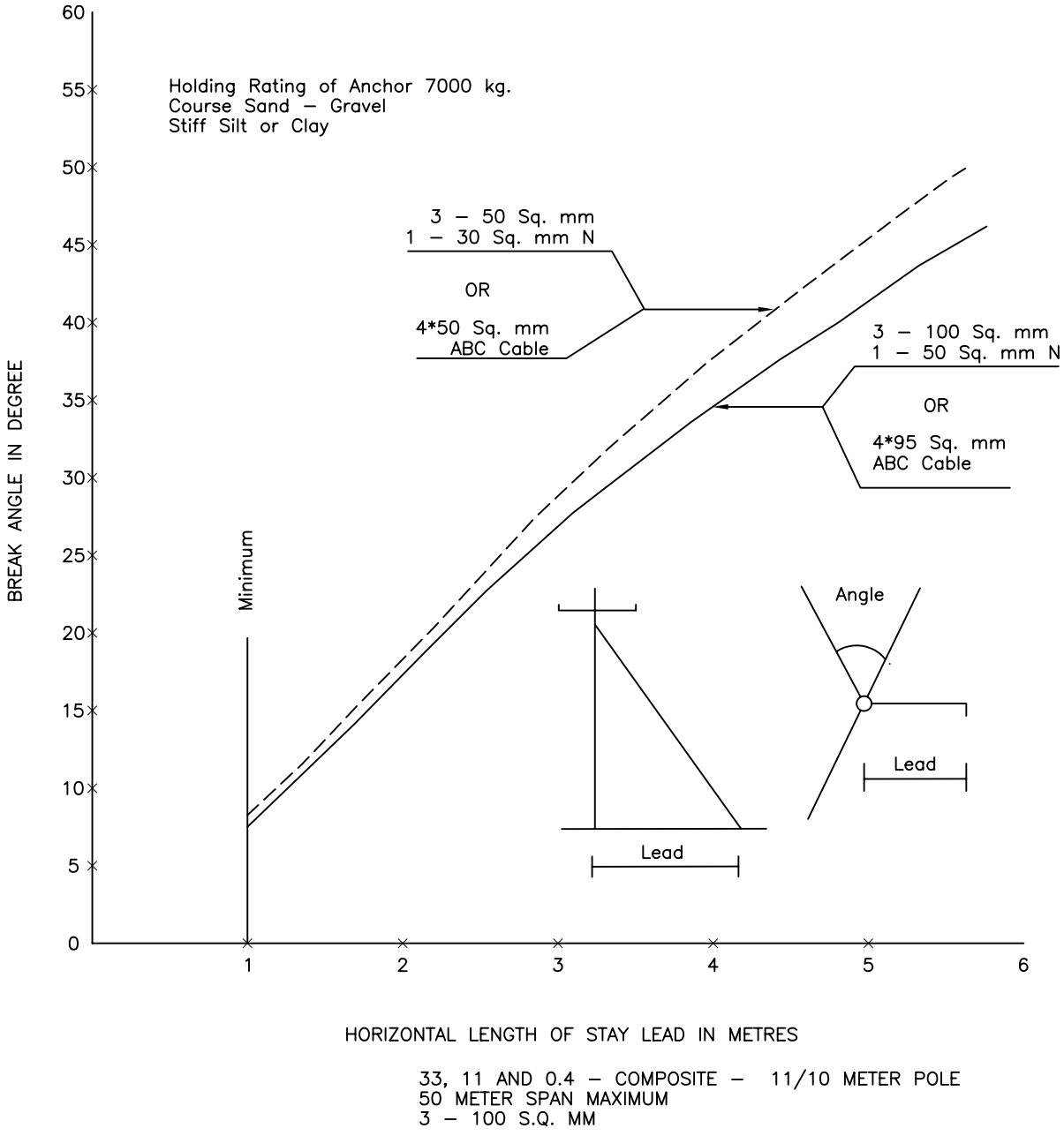


Drawing **CSG-STAY-06**	**Stays and Anchors**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services



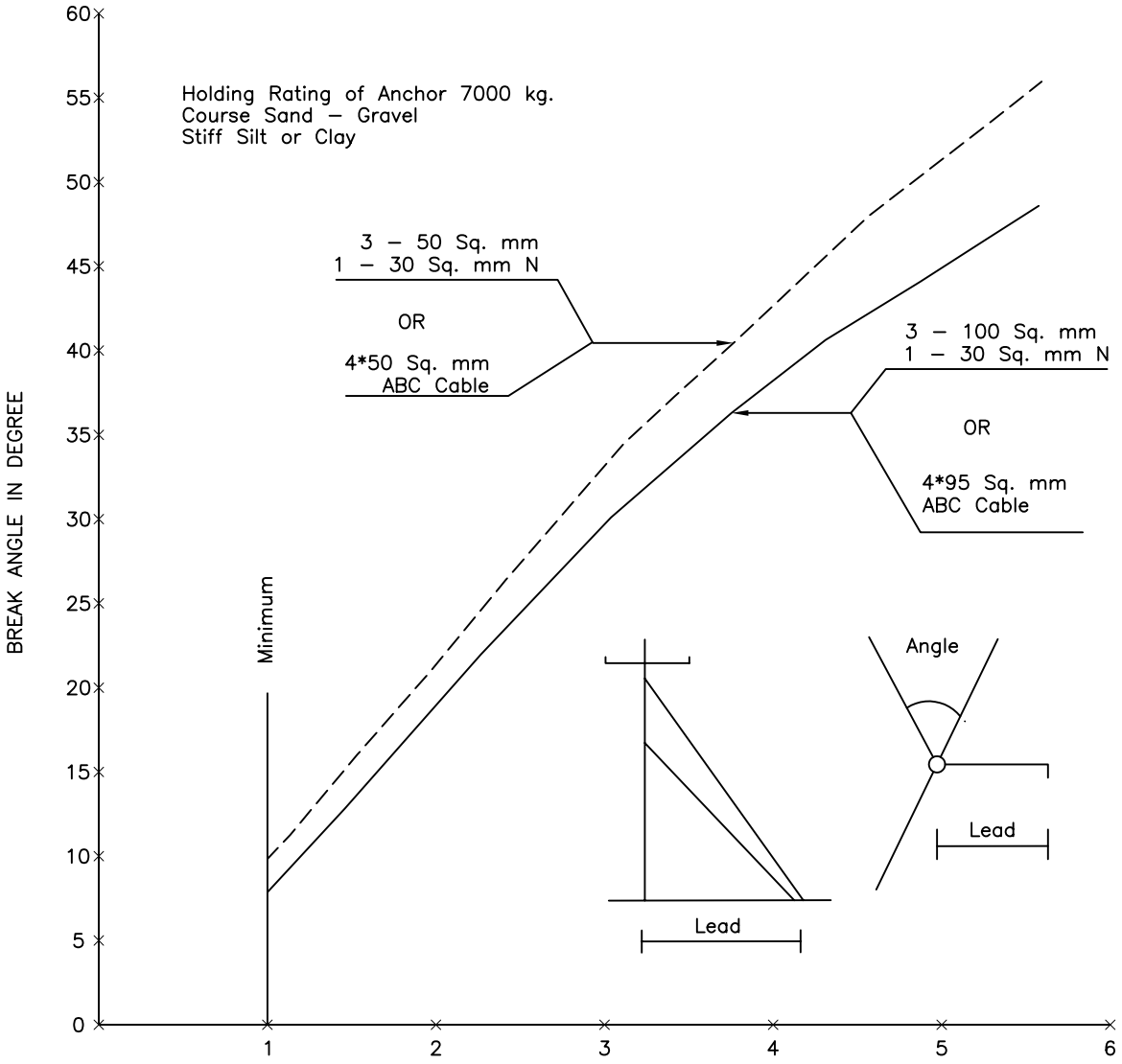
33/11 kV ONLY – 11/10 METER POLES
70 METER SPANS MAXIMUM

Drawing **CSG-STAY-07**	**Minimum Lead for Side Angle Stays**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services



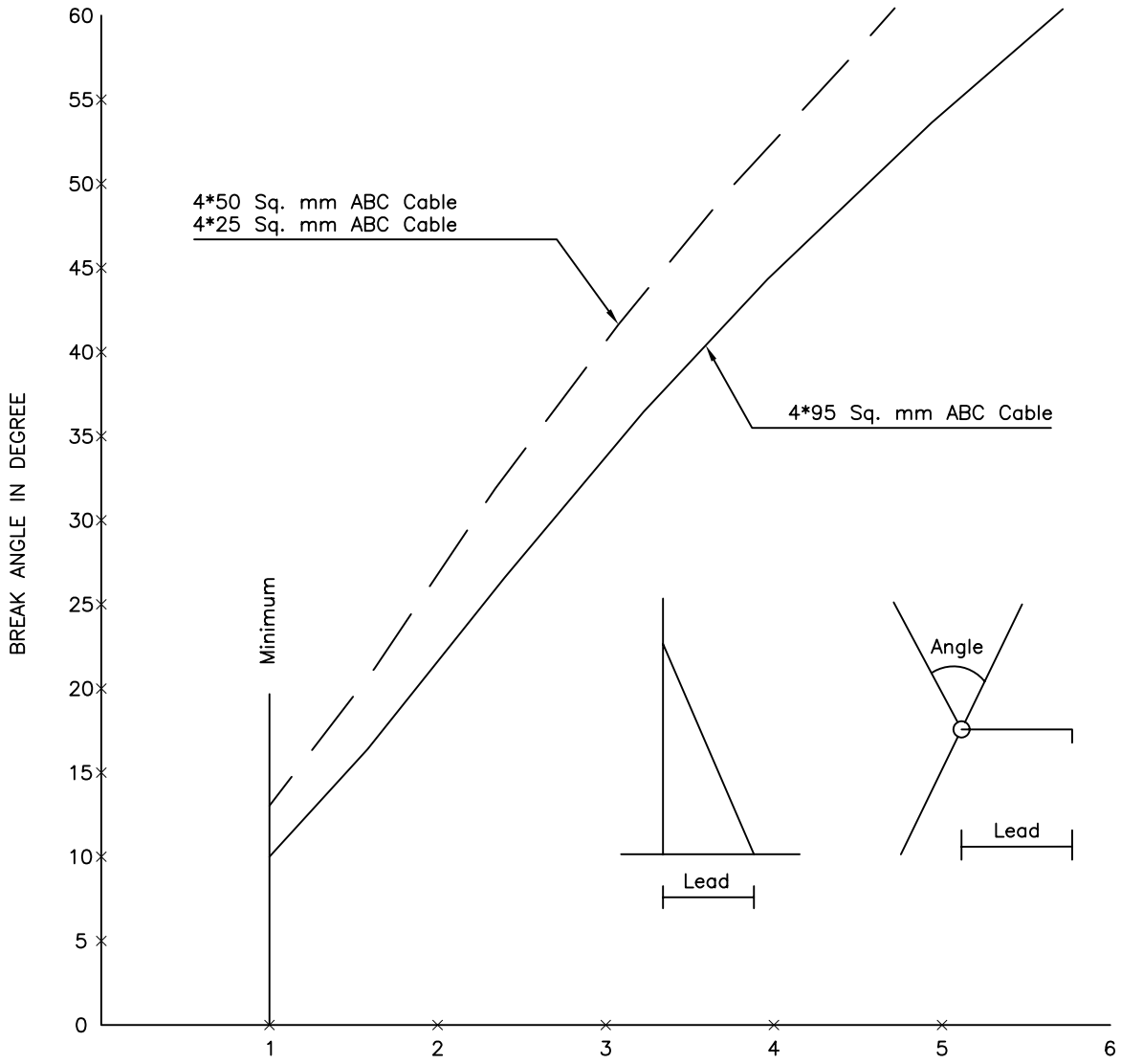
33, 11 AND 0.4 – COMPOSITE – 11/10 METER POLE
50 METER SPAN MAXIMUM
3 – 100 S.Q. MM

Drawing **CSG-STAY-08**	**Minimum Lead for Side Angle Stays**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services



33, 11 AND 0.4 kV –COMPOSITE – 11/10 METER POLE
50 METER SPAN MAXIMUM
3 – 50 S.Q. MM
1 – 30 S.Q. MM

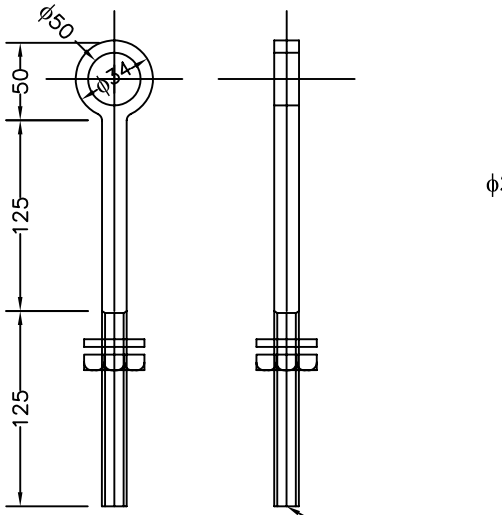
Drawing **CSG-STAY-09**	**Minimum Lead for Side Angle Stays**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services



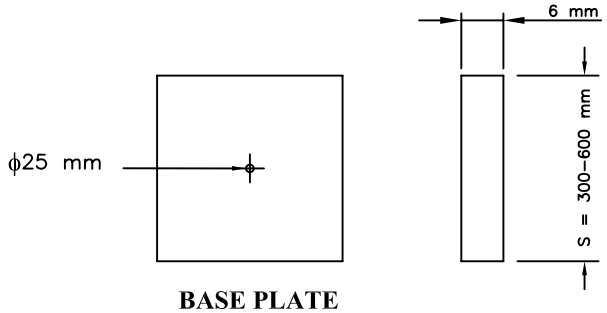
HORIZONTAL LENGTH OF STAY LEAD IN METRES

230 V ONLY – 8 METER POLE
400 V ONLY – 9 METER POLES
50 METER SPANS MAXIMUM

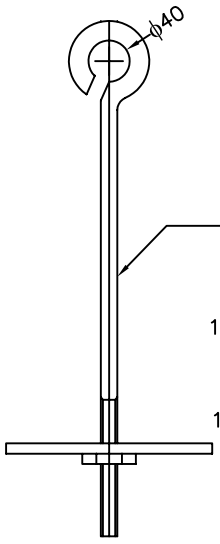
Drawing **CSG-STAY-10**	**Minimum Lead for Side Angle Stays**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services



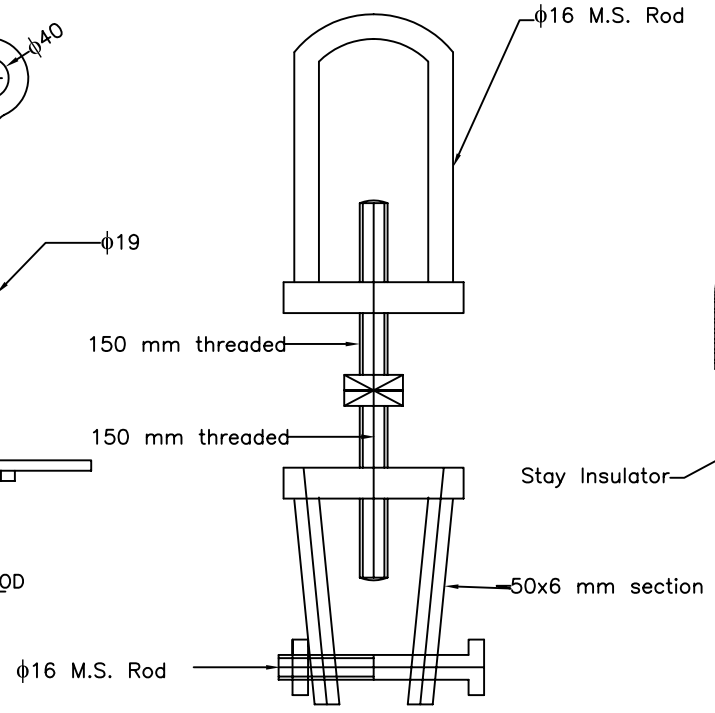
EYE-BOLT



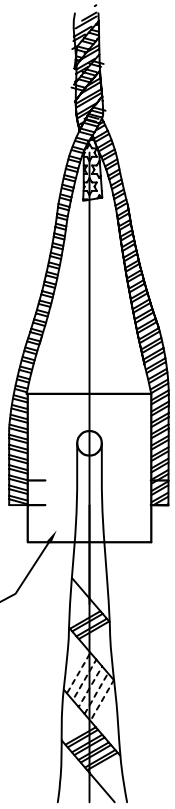
BASE PLATE



STAY ROD



TURN BUCKLE



PREFORMED WIRE ASSEMBLY WITH STAY INSULATOR

S. N.	Description	Unit	HT Stay	LT Stay
1	Length of Stay Rod	mm	2440	1800
2	Diameter of Stay Rod	mm	19	16
3	Length of threaded portion of stay rod	mm	300	300

Drawing **CSG-STAY-11**	**Hardware for Stay Set**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

INSULATOR TIES

Refer Drawing No: CSG-TIES-01and 02

S.No.	SPECIFICATION	DESIGNATION	11 kV PIN INSULATOR TIE	33 kV PIN INSULATOR TIE
1	**TOP TIE**			
A	100 sq.mm.	TT-1	RED	RED
B	50 sq.mm.	TT-2	YELLOW	YELLOW
C	30 sq.mm.	TT-3	BLUE	
2	**SIDE TIE**			
A	100 sq.mm.	ST-1	GREEN	GREEN
B	50 sq.mm.	ST-2	BLACK	BLACK
C	30 sq.mm.	ST-3	PINK	
3	**DOUBLE PIN TOP TIE**			
A	100 sq.mm.	DTT-1	RED	
B	50 sq.mm.	DTT-2	YELLOW	
C	30 sq.mm.	DTT-3	BLUE	

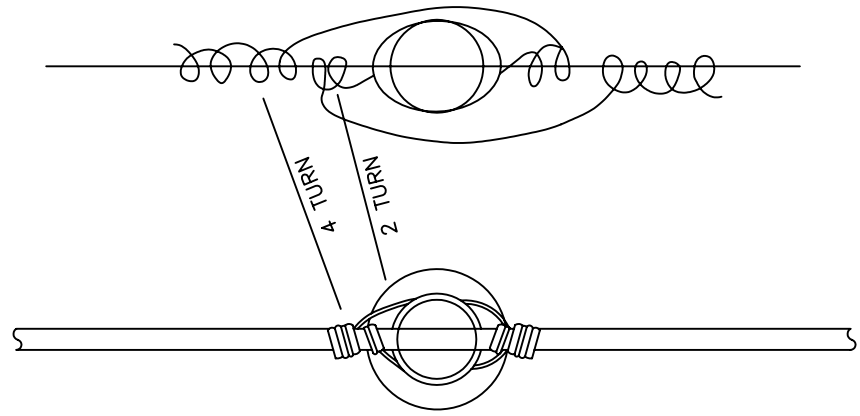
S.No.	SPECIFICATION	DESIGNATION	COLOURE CODE
	STAY WIRE		
A	7/3.25 mm	GS-1	RED
B	7/2.64 mm	GS-2	BLUE

CONSTRUCTION STANDARDS
PREFORMED INSULATOR TIES

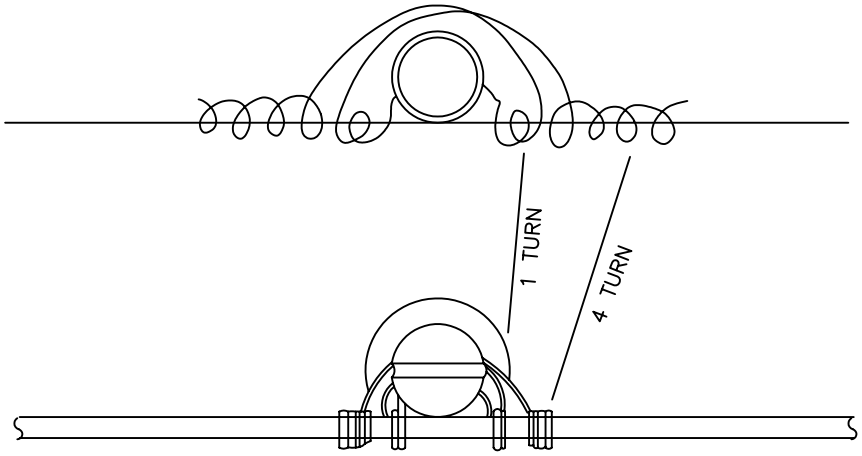
NEPAL ELECTRICITY AUTHORITY
Technical Service/ Commercial Department
Distribution and Consumer Services

JUMPER TIES

TOP GROOVE



SIDE GROOVE

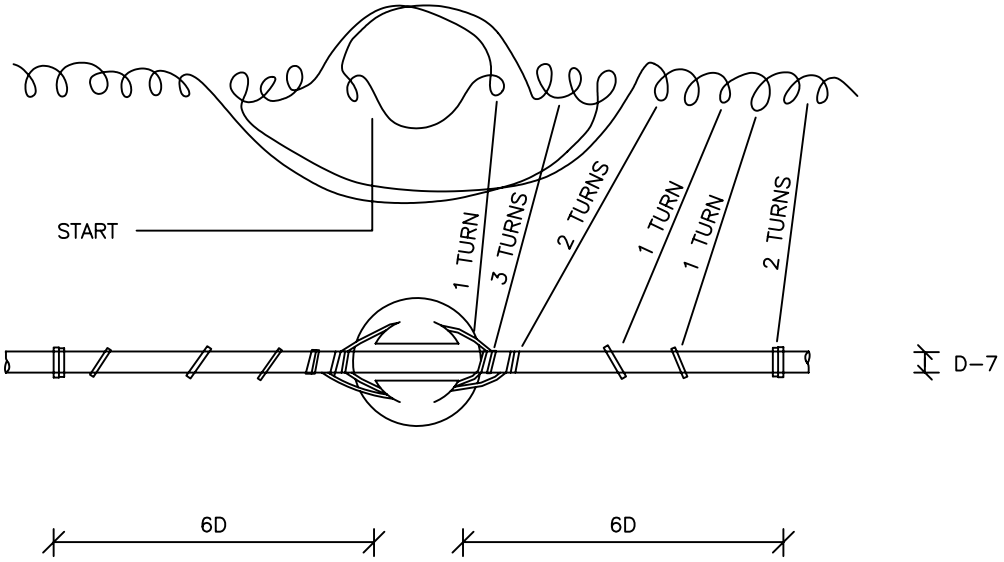


NOTES

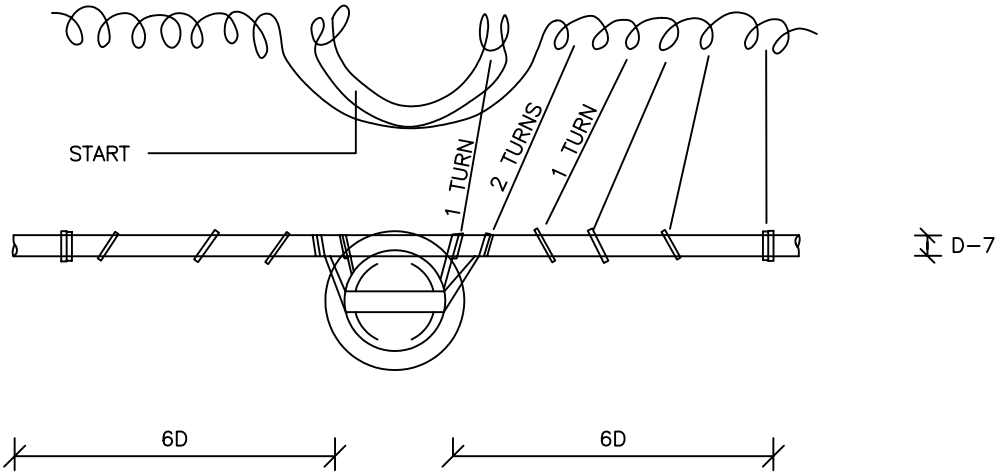
1. TIE WIRE ASSEMBLY SHOULD BE AS TIGHT AS CAN BE WRAPPED.
2. TURNS MAY BE IN EITHER DIRECTION, AS LONG AS ONE–HALF THE TURNS OPPOSE THE OTHER HALF TO PREVENT LOOSENING OF THE TIE.
3. USE ONLY FOR SECURING JUMPERS ON STRUCTURES.

Drawing **CSG-TIES-01**	**Insulator Ties**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

TOP GROOVE



SIDE GROOVE

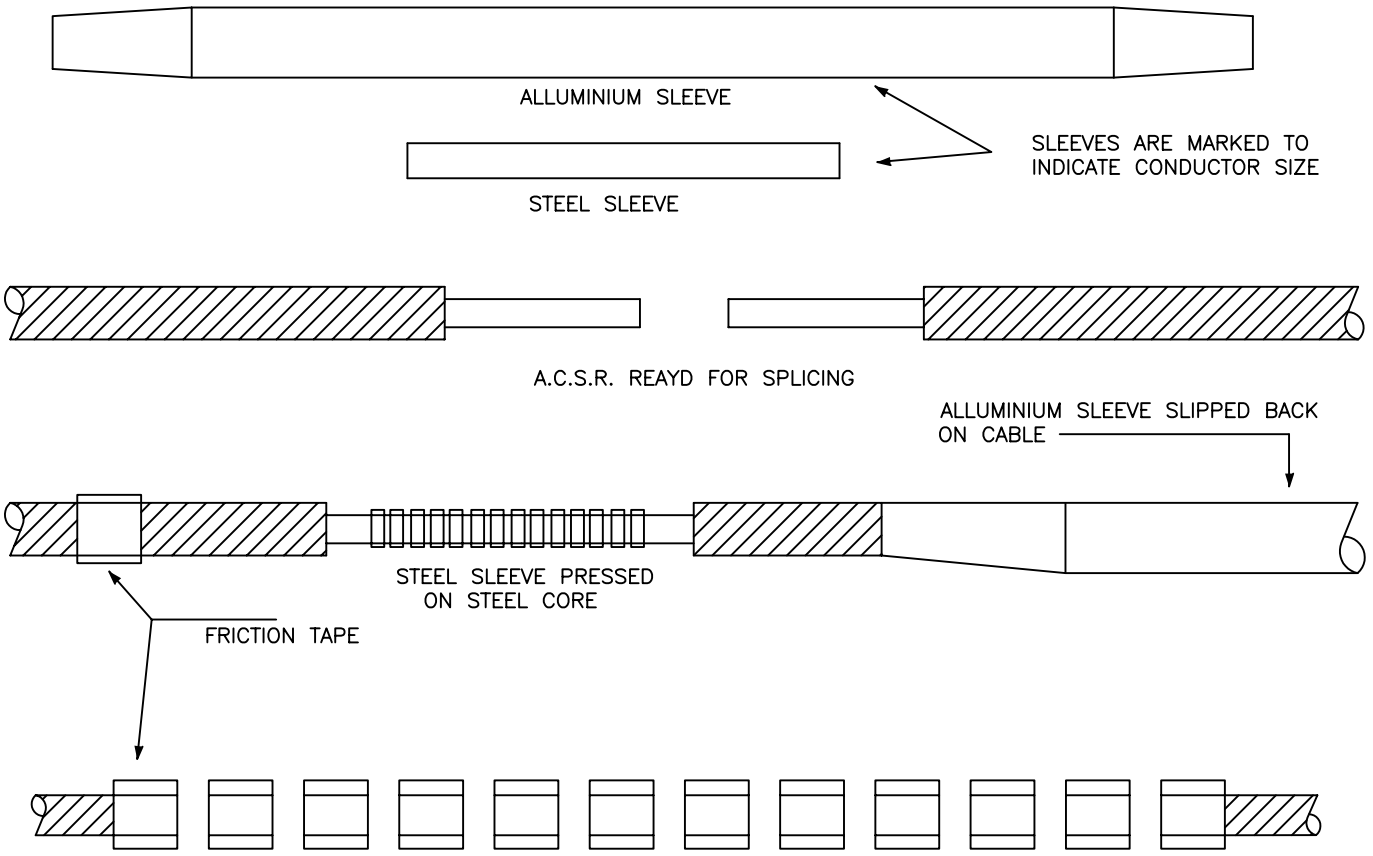


NOTE
1. HAND TIES TO BE USED ONLY WHEN PREFORMED TIES NOT AVAILABLE.
2. CLINCH LAST TWO TURNS TIGHT WITH PLIERS.
3. SOFT DRAWN – TIE WIRE, TO BE USED FOR ALL TIES.

Drawing **CSG-TIES-02**	**Insulator Ties**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

Refer Drawing No: CSG-SPL-01

S.No.	SPECIFICATION	DESIGNATION
A.	**TENSION CONNECTOR**	
1	DOG	A-1T
2	RABBIT	A-2T
3	WEASEL	A-3T
B.	**REPAIR CONNECTOR**	
1	DOG	A-1R
2	RABBIT	A-2R
3	WEASEL	A-3R



1. SELECT PROPER SPLICE FOR THE CONDUCTOR TO BE SPLICED. INSURE BORES OF INNER AND THE SLEEVES ARE CLEAN.
2. INSERT PROPER DIE IN THE COMPRESSION TOOL.
3. CUT END OF CONDUCTOR SQUARE AND SLIP OUTER ALUMINUM SLEEVE OF SPLICE ON ONE END OF THE CONDUCTOR.
4. CUT BACK AND REMOVE ALUMINUM STRAND AT CONDUCTOR END A DISTANCE OF 1/2 THE LENGTH OF THE INNER STEEL SLEEVES PLUS 10 MM.
5. INSERT STEEL CORE WIRES IN THE STEEL SLEEVES AND PRESS WITH INNER GROOVE OF TOOL. PRESS ENTIRE LENGTH OF SLEEVE STARTING AT THE MIDDLE AND WORKING TOWARD THE ENDS LEAVE ABOUT 1.5 MM SPACE BETWEEN
6. STRAIGHTEN STEEL SLEEVE BY HAMMERING CAREFULLY ANAINST A SUITABLE BLOCK.
7. PLACE A PIECE OF FRICTION TAPE ON THE CABLE TO MARK THE POSITION OF THE END OF THE ALUMINUM SLEEVE SUCH THAT IT WILL BE CENTERED ON THE SPLICE.
8. CLEAN CONDUCTOR BY WIREBRUSHING,PAINT THE STEEL SLEEVE AND THE ADJACENT CABLE THAT WILL BE COVERED BY THE ALUMINUM SLEEVE WITH A SUITABLE CORROSION INHIBITOR.
9. SLIP THE ALUMINIUM SLEEVE IN PLACE AND PRESS WITH THE OUTER GROOVE OF TOOL USING THE SAME PROCEDURE AS WITH THE STEEL SLEEVE.
10. STRAIGHTEN ENTIRE SPLICE BY HAMMERING CAREFULLY AGAINST A SUITABLE BLOCK.

Drawing **CSG-SPL-01**	**Tension Splicing Instructions**	NEPAL ELECTRICITY AUTHORITY **Technical Services / Commercial Department** Distribution and Consumer Services

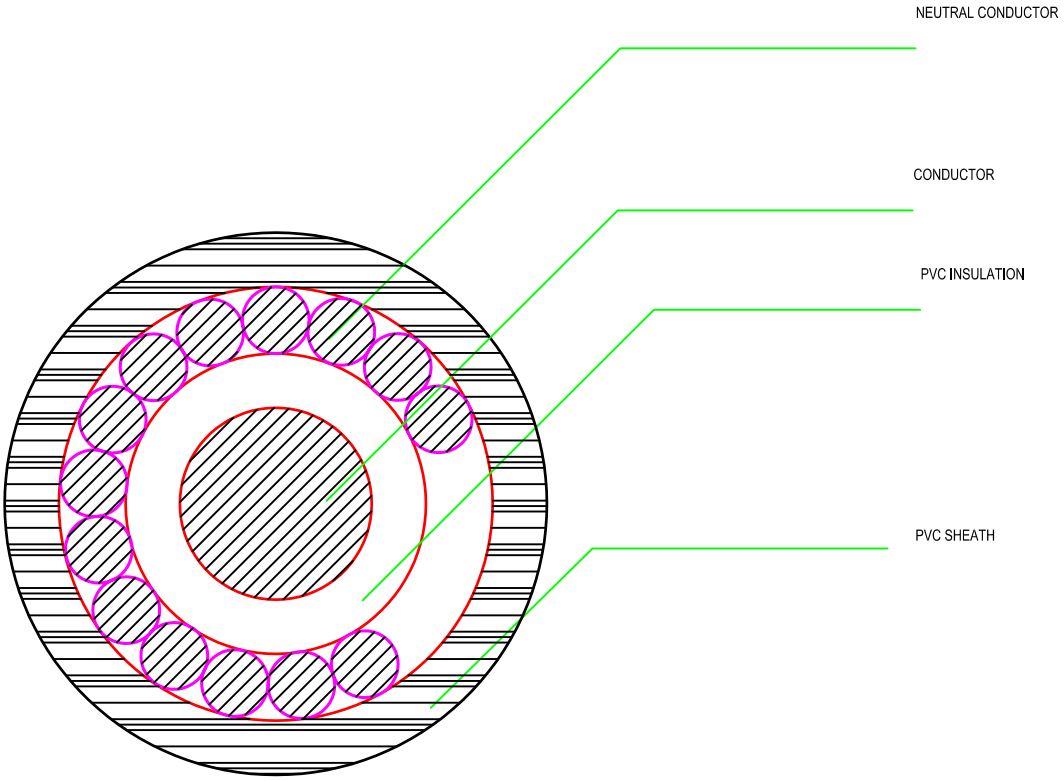
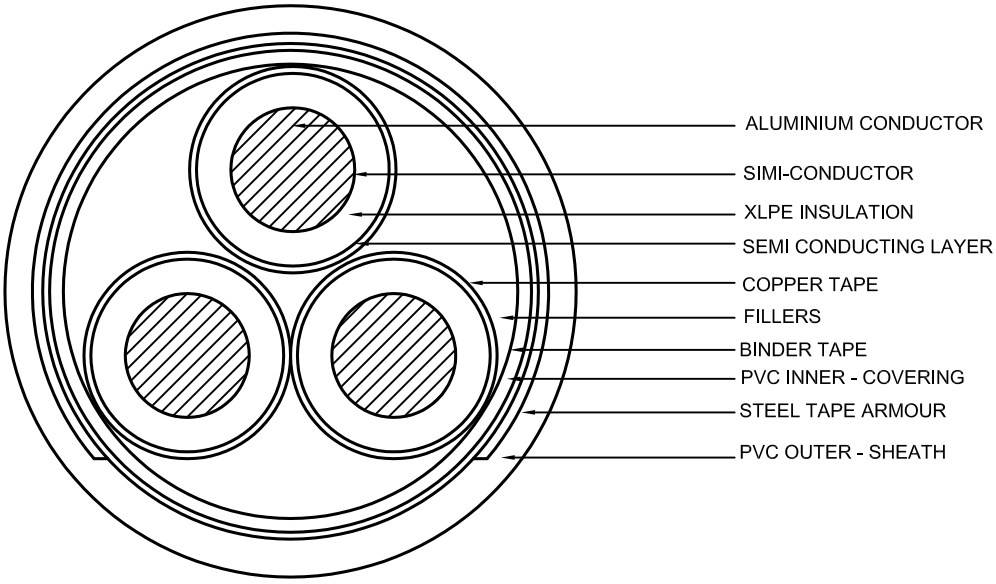


TABLE		
CROSS-SECTION AREA MM2	6	25
DIAMETER MM	2.896	5.69
PVC INSULATION THICKNESS MM.	1.02	1.27
CONCENTRIC NEUTRAL		
NO-STRANDS	21	23
STRAND DIA. MM.	0.7366	1.2192
PVC SHEATH THICKNESS MM.	1.56	1.56
CABLE OD MM.	8.95	13.21

Drawing
CSG-CABL-01

Concentric Cable Cross Section

NEPAL ELECTRICITY AUTHORITY
Technical Services/ Commercial Department
Distribution and Consumer Services

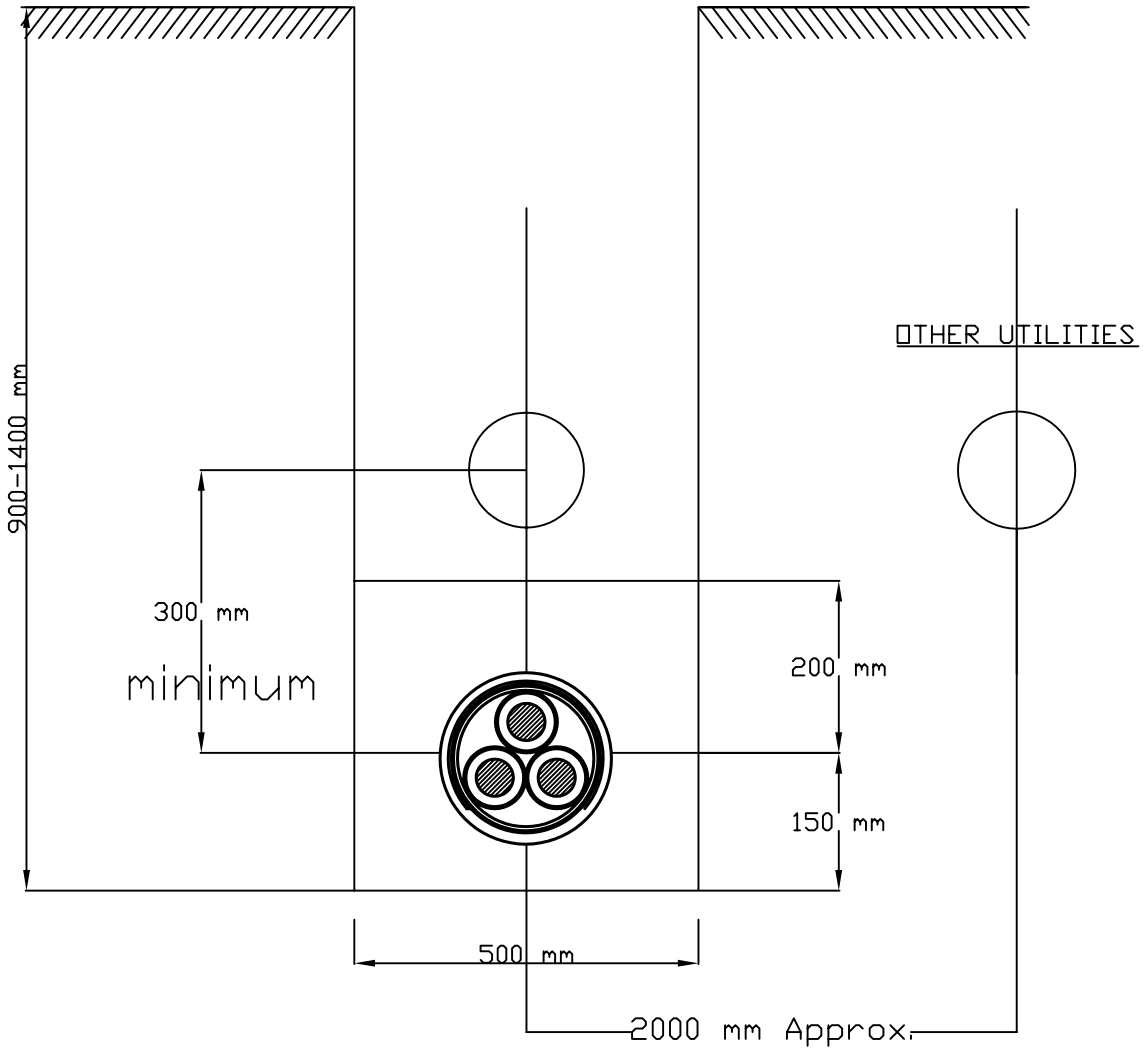


Drawing **CSG-CABL-02**	**XLPE Cable-Cross Section**	NEPAL ELECTRICITY AUTHORITY **Technical Services/ Commercial Department** Distribution and Consumer Services

UNDERGROUND CABLE

CONSTRUCTION NOTES

CABLES SHALL BE LAID LOOSELY IN THE TRENCH AND IN PARALLEL.
CABLE SHALL NOT CROSS OR LAY ON TOP OF ONE ANOTHER.
BACKFILL SHALL BE CLEAN AND FREE OF STONES AND SHARP OBJECTS 150 MM BELOW AND 200 MM ABOVE THE CABLE.
IF TELEPHONE IS PERMITTED IN THE SAME TRENCH IT MUST MAINTAIN A SEPARATION OF 300 MM ABOVE THE CABLE.
OTHER UTILITIES SUCH AS GAS, WATER, SEWER ETC, IF PARALLEL TO DIRECT BURIED ELECTRIC CABLES, SHOULD MAINTAIN A HORIZONTAL SEPARATION OF 2000 MM.



Drawing **CSG-CABL-03**	**11 kV XLPE Underground Cable Laying General Instruction**	NEPAL ELECTRICITY AUTHORITY **Technical Services/ Commercial Department** Distribution and Consumer Services